

JVC

SERVICE MANUAL

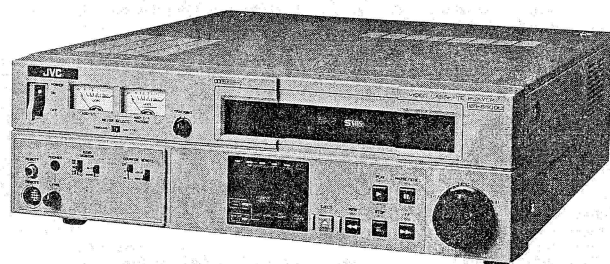
S-VHS VIDEO CASSETTE RECORDER

BR-S800E/BR-S500E

(S-VHS VIDEO CASSETTE RECORDER) (S-VHS VIDEO CASSETTE PLAYER)



BR-S800E



BR-S500E

SPECIFICATIONS

S VHS
625

VHS
PAL

Hi-Fi

GENERAL

Format	: VHS/S-VHS standard
Signal system	: PAL-type colour signal/PAL-type Y/C signal
Recording & Playback mode	: Recording: SP, Playback: SP (BR-S800E) Playback: SP (BR-S500E)
Tape speed	: 23.39 mm/s
Recording & Playback time	: Recording: 180 min. / Playback: 180 min. (BR-S800E) Playback: 180 min. (BR-S500E)
Fast forward/Rewind time	: Less than 2.5 min. for 180 min. tape
Power requirement	: 220 - 240 V AC, 50/60 Hz
Power consumption	: 49 W (59 W when using RM-G800U) (BR-S800E) 44 W (54 W When using RM-G800U) (BR-S500E)
Dimensions	: 430 (W) X 149.5 (H) X 460 (D) mm
Weight	: Approx. 11.5 kg
Operating temperature	: 5°C to 40°C
Storage temperature	: -20°C to 60°C
Humidity	: 30 % to 80 %

VIDEO

Composite IN	: 0.5 to 2.0 Vp-p, 75 ohms, unbalanced (BR-S800E)
Y/C IN	: Y: 1.0 Vp-p, 75 ohms, unbalanced (BR-S800E) C: 0.3 Vp-p, 75 ohms, unbalanced (Burst)
Composite OUT	: 1.0 Vp-p, 75 ohms, unbalanced
Y/C OUT	: Y: 1.0 Vp-p, 75 ohms, unbalanced C: 0.3 Vp-p, 75 ohms, unbalanced (Burst)
External Ref	: 0.5 to 2.0 Vp-p, 75 ohms, unbalanced
Horizontal resolution	: More than 400 lines (S-VHS)/240 lines (VHS)
Signal-to-noise ratio	: More than 45 dB (S-VHS) / 45 dB (VHS)

AUDIO

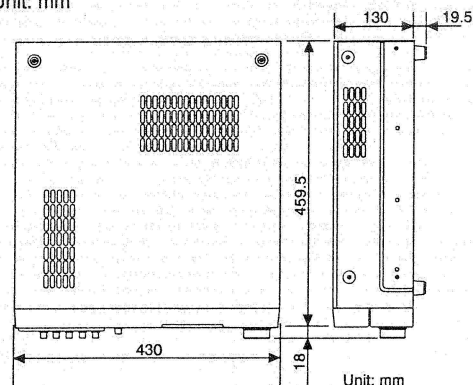
Number of tracks	: 4 (Hi-Fi X 2, Normal X 2)
Line IN	: -6 dBs, 10 k-ohms, unbalanced (BR-S800E)
Mic IN	: -67 dBs, 3 k-ohms, unbalanced (BR-S800E)
Line OUT	: -6 dBs, 1 k-ohm, unbalanced

Phones OUT	: -∞ to -20 dBs, 8 ohms, unbalanced, stereo
Hi-Fi audio	
Frequency response	: 20 to 20,000 Hz
Dynamic range	: More than 85 dB
Wow & flutter	: Less than 0.006% WRMS
Normal audio	
Frequency response	: 50 to 10,000 Hz
Signal-to-noise ratio	: More than 40 dB (NR-off, at 3 % distortion)
Wow & flutter	: Less than 0.25% RMS (Normal)

ACCESSORY : Power Cord

DIMENSIONS

Unit: mm



Desing and specifixations subject to chnange notice.

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Important Safety Precautions

Prior to shipment from the factory, JVC products are strictly inspected to conform with the recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

● Precautions during Servicing

1. Locations requiring special caution are denoted by labels and inscriptions on the cabinet, chassis and certain parts of the product. When performing service, be sure to read and comply with these and other cautionary notices appearing in the operation and service manuals.

2. Parts identified by the  symbol and shaded (▨) parts are critical for safety.

Replace only with specified part numbers.

Note: Parts in this category also include those specified to comply with X-ray emission standards for products using cathode ray tubes and those specified for compliance with various regulations regarding spurious radiation emission.

3. Fuse replacement caution notice.

Caution for continued protection against fire hazard.
Replace only with same type and rated fuse(s) as specified.

4. Use specified internal wiring. Note especially:

- 1) Wires covered with PVC tubing
- 2) Double insulated wires
- 3) High voltage leads

5. Use specified insulating materials for hazardous live parts. Note especially:

- | | | |
|--------------------|--------------------------------------|------------|
| 1) Insulation Tape | 3) Spacers | 5) Barrier |
| 2) PVC tubing | 4) Insulation sheets for transistors | |

6. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.) wrap ends of wires securely about the terminals before soldering.

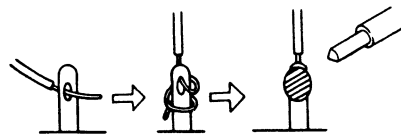


Fig. 1

7. Observe that wires do not contact heat producing parts (heat-sinks, oxide metal film resistors, fusible resistors, etc.)

8. Check that replaced wires do not contact sharp edged or pointed parts.

9. When a power cord has been replaced, check that 10–15 kg of force in any direction will not loosen it.

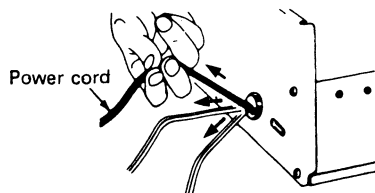


Fig. 2

10. Also check areas surrounding repaired locations.

11. Products using cathode ray tubes (CRTs)

In regard to such products, the cathode ray tubes themselves, the high voltage circuits, and related circuits are specified for compliance with recognized codes pertaining to X-ray emission. Consequently, when servicing these products, replace the cathode ray tubes and other parts with only the specified parts. Under no circumstances attempt to modify these circuits. Unauthorized modification can increase the high voltage value and cause X-ray emission from the cathode ray tube.

12. Crimp type wire connector

In such cases as when replacing the power transformer in sets where the connections between the power cord and power transformer primary lead wires are performed using crimp type connectors, if replacing the connectors is unavoidable, in order to prevent safety hazards, perform carefully and precisely according to the following steps.

1) **Connector part number :** E03830-001

2) **Required tool :** Connector crimping tool of the proper type which will not damage insulated parts.

3) **Replacement procedure**

(1) Remove the old connector by cutting the wires at a point close to the connector.

Important : Do not reuse a connector (discard it).

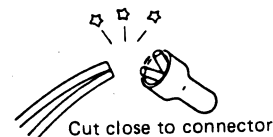


Fig. 3

(2) Strip about 15 mm of the insulation from the ends of the wires. If the wires are stranded, twist the strands to avoid frayed conductors.

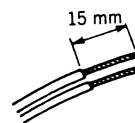


Fig. 4

(3) Align the lengths of the wires to be connected. Insert the wires fully into the connector.

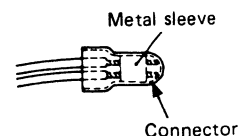


Fig. 5

(4) As shown in Fig. 6, use the crimping tool to crimp the metal sleeve at the center position. Be sure to crimp fully to the complete closure of the tool.

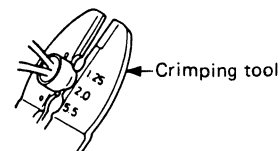


Fig. 6

(5) Check the four points noted in Fig. 7.

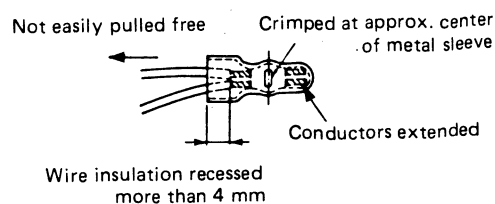


Fig. 7

● Safety Check after Servicing

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts and wires have been returned to original positions. Afterwards, perform the following tests and confirm the specified values in order to verify compliance with safety standards.

1. Insulation resistance test

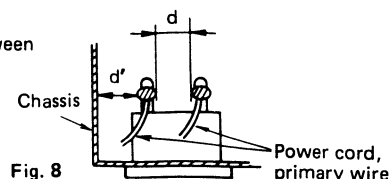
Confirm the specified insulation resistance or greater between power cord plug prongs and externally exposed parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See table 1 below.

2. Dielectric strength test

Confirm specified dielectric strength or greater between power cord plug prongs and exposed accessible parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See table 1 below.

3. Clearance distance

When replacing primary circuit components, confirm specified clearance distance (d), (d') between soldered terminals, and between terminals and surrounding metallic parts. See table 1 below.

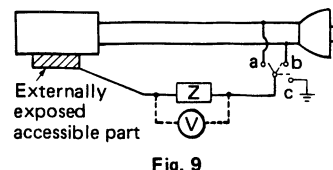


4. Leakage current test

Confirm specified or lower leakage current between earth ground/power cord plug prongs and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.).

Measuring Method: (Power ON)

Insert load Z between earth ground/power cord plug prongs and externally exposed accessible parts. Use an AC voltmeter to measure across both terminals of load Z. See figure 9 and following table 2.

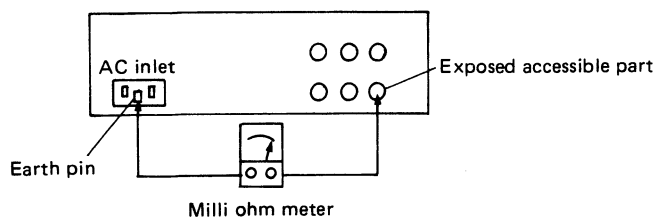


5. Grounding (Class I model only)

Confirm specified or lower grounding impedance between earth pin in AC inlet and externally exposed accessible parts (Video in, Video out, Audio in, Audio out or Fixing screw etc.).

Measuring Method:

Connect milli ohm meter between earth pin in AC inlet and exposed accessible parts. See figure 10 and grounding specifications.



Grounding Specifications

Region	Grounding Impedance (Z)
USA & Canada	$Z \leq 0.1 \text{ ohm}$
Europe & Australia	$Z \leq 0.5 \text{ ohm}$

AC Line Voltage	Region	Insulation Resistance (R)	Dielectric Strength	Clearance Distance (d), (d')
100 V	Japan	$R \geq 1 \text{ M}\Omega / 500 \text{ V DC}$	AC 1 kV 1 minute	$d, d' \geq 3 \text{ mm}$
100 to 240 V			AC 1.5 kV 1 minute	$d, d' \geq 4 \text{ mm}$
110 to 130 V	USA & Canada	—	AC 900 V 1 minute	$d, d' \geq 3.2 \text{ mm}$
110 to 130 V 200 to 240 V	Europe & Australia	$R \geq 10 \text{ M}\Omega / 500 \text{ V DC}$	AC 3 kV 1 minute (Class II) AC 1.5 kV 1 minute (Class I)	$d \geq 4 \text{ mm}$ $d' \geq 8 \text{ mm}$ (Power cord) $d' \geq 6 \text{ mm}$ (Primary wire)

Table 1 Specifications for each region

AC Line Voltage	Region	Load Z	Leakage Current (i)	a, b, c
100 V	Japan		$i \leq 1 \text{ mA rms}$	Exposed accessible parts
110 to 130 V	USA & Canada		$i \leq 0.5 \text{ mA rms}$	Exposed accessible parts
110 to 130 V 220 to 240 V	Europe & Australia		$i \leq 0.7 \text{ mA peak}$ $i \leq 2 \text{ mA dc}$	Antenna earth terminals
			$i \leq 0.7 \text{ mA peak}$ $i \leq 2 \text{ mA dc}$	Other terminals

Table 2 Leakage current specifications for each region

Note: These tables are unofficial and for reference only. Be sure to confirm the precise values for your particular country and locality.

SECTION 1

GENERAL DESCRIPTION AND DISASSEMBLY

1. 1 INTERNAL SWITCHES

- 0 3 SLOT MOTHER board

Symbol No.	Switch Name	Setting at Shipment	Function												
SW 1-1	Output selector switch	<div>ON : SHORT</div> <div><div>① ② ③</div><div><div></div><div></div><div></div></div><div>↕</div></div> <div>OFF : OPEN</div>	<p>To select one of output signals originating from the internal circuits of this set and from an optional board connected to the upper slot. For detail of switch setting, refer to the service manual of the externally connected optional board.</p> <p>ON :Output signal of internal circuit is selected.</p> <p>OFF :Output signal via optional equipment is selected.</p> <p>For the function of respective switches, refer to the following table.</p> <table><tr><td>SW1-1-①</td><td>To select C signal output of S-OUT terminal.</td></tr><tr><td>SW1-1-②</td><td>To select Y signal output of S-OUT terminal.</td></tr><tr><td>SW1-1-③</td><td>To select output of LINE OUT-1 terminal.</td></tr><tr><td>SW1-2-①</td><td>To select C signal input.</td></tr><tr><td>SW1-2-②</td><td>Not used.</td></tr><tr><td>SW1-2-③</td><td>To select Y signal input.</td></tr></table> <p><i>Note : If all of the above switches are set to OFF without connection of optional board, no signal is output.</i></p>	SW1-1-①	To select C signal output of S-OUT terminal.	SW1-1-②	To select Y signal output of S-OUT terminal.	SW1-1-③	To select output of LINE OUT-1 terminal.	SW1-2-①	To select C signal input.	SW1-2-②	Not used.	SW1-2-③	To select Y signal input.
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SW1-2-①	To select C signal input.														
SW1-2-②	Not used.														
SW1-2-③	To select Y signal input.														
SW 1-2	Output selector switch	<div>ON : SHORT</div> <div><div>① ② ③</div><div><div></div><div></div><div></div></div><div>↕</div></div> <div>OFF : OPEN</div>	<p>To select one of output signals originating from the internal circuits of this set and from an optional board connected to the lower slot. For detail of switch setting, refer to the service manual of the externally connected optional board.</p> <p>ON :Output signal of internal circuit is selected.</p> <p>OFF :Output signal via optional equipment is selected.</p> <p>For the function of respective switches, refer to the following table.</p> <table><tr><td>SW2-1-①</td><td>To select C signal output of S-OUT terminal.</td></tr><tr><td>SW2-1-②</td><td>To select Y signal output of S-OUT terminal.</td></tr><tr><td>SW2-1-③</td><td>To select output of LINE OUT-1 terminal.</td></tr><tr><td>SW2-2-①</td><td>To select C signal input.</td></tr><tr><td>SW2-2-②</td><td>Not used.</td></tr><tr><td>SW2-2-③</td><td>To select Y signal input.</td></tr></table> <p><i>Note : If all of the above switches are set to OFF without connection of optional board, no signal is output.</i></p>	SW2-1-①	To select C signal output of S-OUT terminal.	SW2-1-②	To select Y signal output of S-OUT terminal.	SW2-1-③	To select output of LINE OUT-1 terminal.	SW2-2-①	To select C signal input.	SW2-2-②	Not used.	SW2-2-③	To select Y signal input.
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SW2-2-②	Not used.														
SW2-2-③	To select Y signal input.														
SW 2-2	Output selector switch	<div>ON : SHORT</div> <div><div>① ② ③</div><div><div></div><div></div><div></div></div><div>↕</div></div> <div>OFF : OPEN</div>	<p>To select one of output signals originating from the internal circuits of this set and from an optional board connected to the lower slot. For detail of switch setting, refer to the service manual of the externally connected optional board.</p> <p>ON :Output signal of internal circuit is selected.</p> <p>OFF :Output signal via optional equipment is selected.</p> <p>For the function of respective switches, refer to the following table.</p> <table><tr><td>SW2-1-①</td><td>To select C signal output of S-OUT terminal.</td></tr><tr><td>SW2-1-②</td><td>To select Y signal output of S-OUT terminal.</td></tr><tr><td>SW2-1-③</td><td>To select output of LINE OUT-1 terminal.</td></tr><tr><td>SW2-2-①</td><td>To select C signal input.</td></tr><tr><td>SW2-2-②</td><td>Not used.</td></tr><tr><td>SW2-2-③</td><td>To select Y signal input.</td></tr></table> <p><i>Note : If all of the above switches are set to OFF without connection of optional board, no signal is output.</i></p>	SW2-1-①	To select C signal output of S-OUT terminal.	SW2-1-②	To select Y signal output of S-OUT terminal.	SW2-1-③	To select output of LINE OUT-1 terminal.	SW2-2-①	To select C signal input.	SW2-2-②	Not used.	SW2-2-③	To select Y signal input.
SW2-1-①	To select C signal output of S-OUT terminal.														
SW2-1-②	To select Y signal output of S-OUT terminal.														
SW2-1-③	To select output of LINE OUT-1 terminal.														
SW2-2-①	To select C signal input.														
SW2-2-②	Not used.														
SW2-2-③	To select Y signal input.														
SW 3	TBS switch	<div>ON <div><div></div><div></div><div></div><div></div><div></div></div> OFF</div> <div>↔</div>	<p>To select external sync signal input to the set.</p> <p>OFF :Input signal to the SYNC IN terminal is selected.</p> <p>ON :Signal that passed the optional TBS board (SA-N50) is selected. (When TBS board is connected, set this switch to ON.)</p> <p><i>Note: "ON" and "OFF" appearing on the board differ from the ON and OFF operations of this switch shown on the circuit diagram.</i></p>												

1. 2 REMOVAL OF EXTERNAL COVERS

Note: When disassembling the set, make sure that the power is disconnected (power cord is disconnected from the AC outlet) beforehand.

Cover to remove	Screw to remove	Description
Top cover (Fig.1-2-1)	Ⓐ (2pcs.) total (2pcs.)	<ul style="list-style-type: none"> Remove two screws Ⓐ and pull the top cover rearward to remove it.
Bottom cover (Fig.1-2-4)	Ⓑ (3pcs.), Ⓒ (1pcs.) total (4pcs.)	<ul style="list-style-type: none"> Remove screws Ⓑ and Ⓒ (four screws in total). Note : Among the four screws, one screw Ⓒ is different from others. Release the bottom cover from two hooks Ⓔ of the rear bracket and pull it out.
Front panel (Fig.1-2-1,3,4)	Ⓐ (2pcs.) total (2pcs.)	<ul style="list-style-type: none"> Remove the top cover. (Refer to the above description.) Remove all the knobs of the SEARCH control, TRACKING control (with washer), and various LEVEL controls. Carefully lift the front panel assembly upwards to disengage the three hooks Ⓒ retaining it in the upper side. (Fig. 1-2-3) Tilt the front panel assembly frontward to disengage the three hooks Ⓓ retaining it in the lower side, and then take out the front panel assembly. (Fig. 1-2-4). Note : For removing and reinstalling the cassette housing, make sure to remove the front panel beforehand otherwise the REC SAFETY switch may be damaged.
Rear bracket (Fig.1-2-5)	Ⓓ (4pcs.) total (4pcs.)	<ul style="list-style-type: none"> Remove four screws Ⓓ with the arrow, and pull out the rear cover. Note : The rear bracket is fitted with the REAR board, which is directly connected to the MOTHER-2 board with connectors. When reinstalling the rear bracket, it is recommended to remove the top cover to do the work easily.
Right(Left) side cover (Fig.1-2-1,2)	Ⓔ (4pcs. each) total (4pcs.)	<ul style="list-style-type: none"> Remove four screws Ⓔ from a side (right or left) and pull out a side cover. Note : When rescrewing Ⓔ, pay attention to two screw holes near the front panel. (There are two other screw holes nearby the front panel, and they are not for the screws Ⓔ as shown in Fig. 1-2-2.)

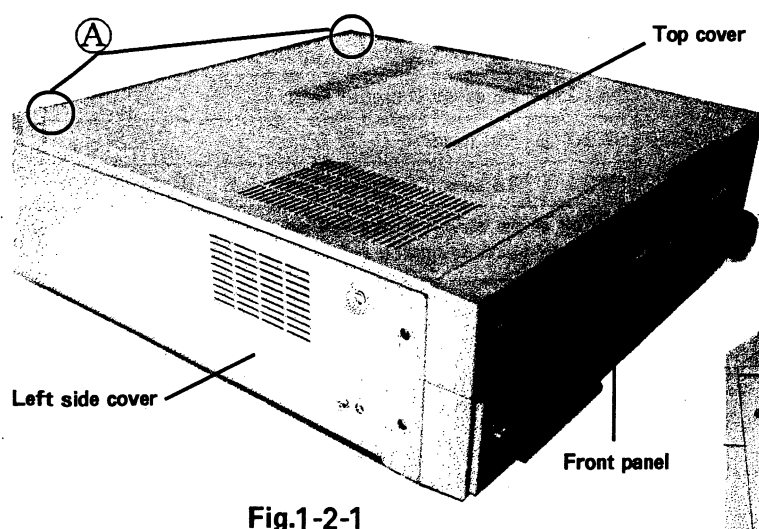


Fig.1-2-1

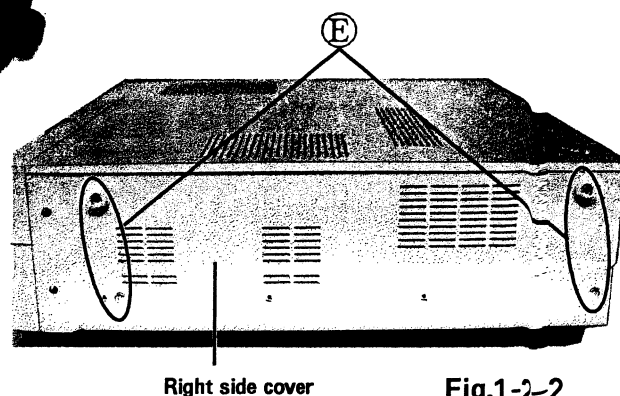


Fig.1-2-2

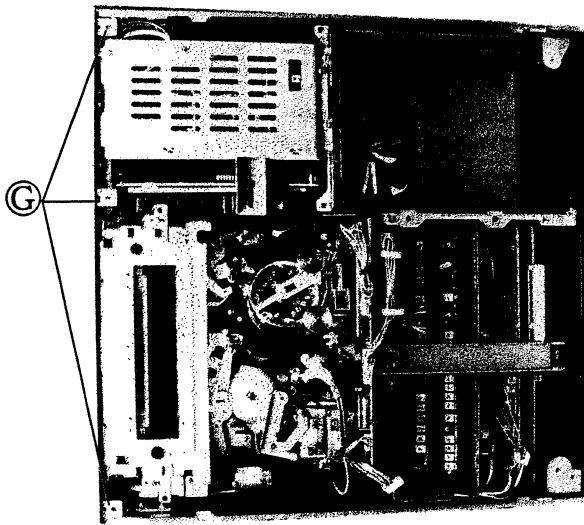


Fig.1-2-3

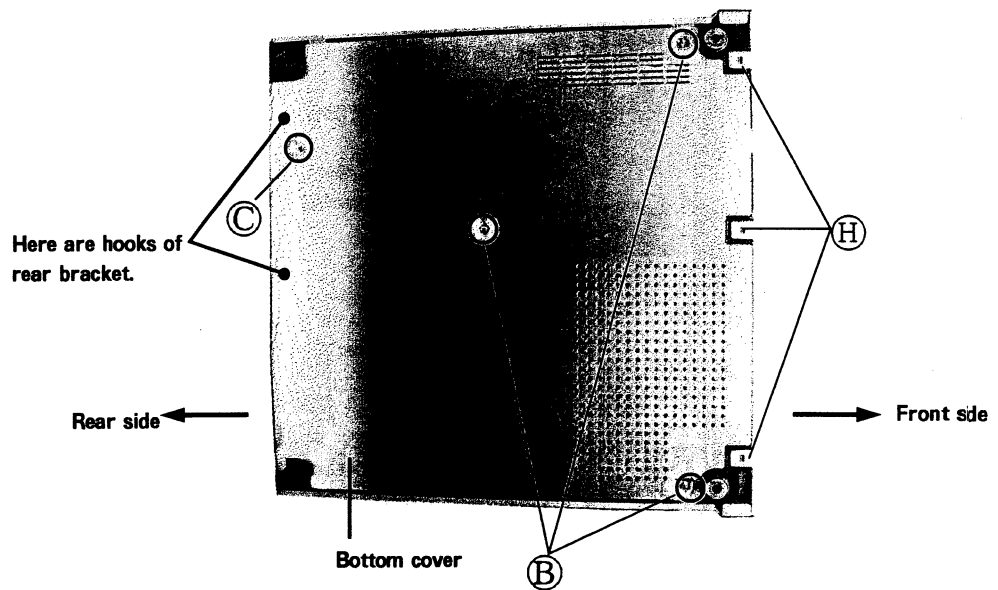


Fig.1-2-4

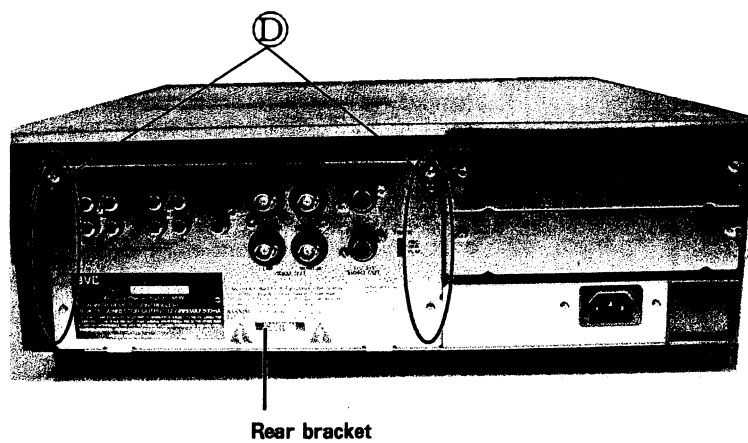
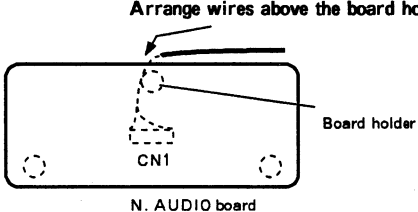


Fig.1-2-5

1. 3 REMOVAL OF MAIN BOARDS

Note :

When removing and reinstalling boards, make sure that the power is disconnected (power cord is disconnected from the AC outlet) beforehand.
When reinstalling boards and connectors that were once removed or disconnected, make sure to set and connect them as they were before removal.

Board Name	Cover to remove	Description
1 0 VIDEO-1 1 1 VIDEO-2	Top cover	<ol style="list-style-type: none"> Loosen the screw of the holder ㊤ and turn the holder ㊤ upwards. Lift the desired board upward and take it out. (Disconnect the connector of the desired board if there is.) <p>Note :</p> <ul style="list-style-type: none"> The N. AUDIO board is connected with the FM AUDIO board. When connecting the wires originating from the connector CN1 of the NORMAL AUDIO board, arrange them so as to pass above the upper side of the board holder. <div style="text-align: center;">  <p>Arrange wires above the board holder.</p> <p>Board holder</p> <p>CN1</p> <p>N. AUDIO board</p> </div>
2 0 FM AUDIO 2 1 N. AUDIO (BR-S800) 2 2 N. AUDIO (BR-S500)		
2 3 AV I/O		
3 1 SYSCON		
SW. REGULATOR 6 0 PRIMARY 6 1 SW. REGULATOR 6 2 REGULATOR		
1 2 AV PRE/REC		<ol style="list-style-type: none"> Loosen the setscrew of the holder ㊤ and slide the holder ㊤. Lift the desired board upward and take it out. <p>Note :</p> <p>For removing the SW. REGULATOR board, remove four screws retaining it to the chassis.</p> <p>If the wire clamp on the bottom is removed, the SW. REGULATOR board can be taken out as it is assembled with the original wiring.</p>
3 0 SERVO M-CTL	Bottom cover	<ol style="list-style-type: none"> Remove two screws retaining the AV PRE/REC board to the drum base. Disconnect all connectors of the board.
4 0 REAR	Rear bracket	<ol style="list-style-type: none"> Disconnect all connectors of the board. Loosen the two setscrews and open the board at an angle of 45° Remove the board from the holder.
OPERATION 3 2 OPERATION-CPU 3 3 OPERATION-VR 3 4 OPERATION-SW 3 5 OPERATION-DIAL	Front panel	<ol style="list-style-type: none"> Remove the screws retaining the rear bracket and REAR board together with. Remove the REAR board from the rear bracket.
		<ol style="list-style-type: none"> Remove the screws retaining the boards to the chassis. Disconnect all connectors of the boards. Pull the boards frontward to remove them together. <p>Note :</p> <p>For removing the OPERATION-CPU board, it is required not only to remove the OPERATION-VR board beforehand but also to pay the most careful attention to the board connector because the OPERATION-CPU board is directly connected to the MOTHER-1 board with the connector.</p>

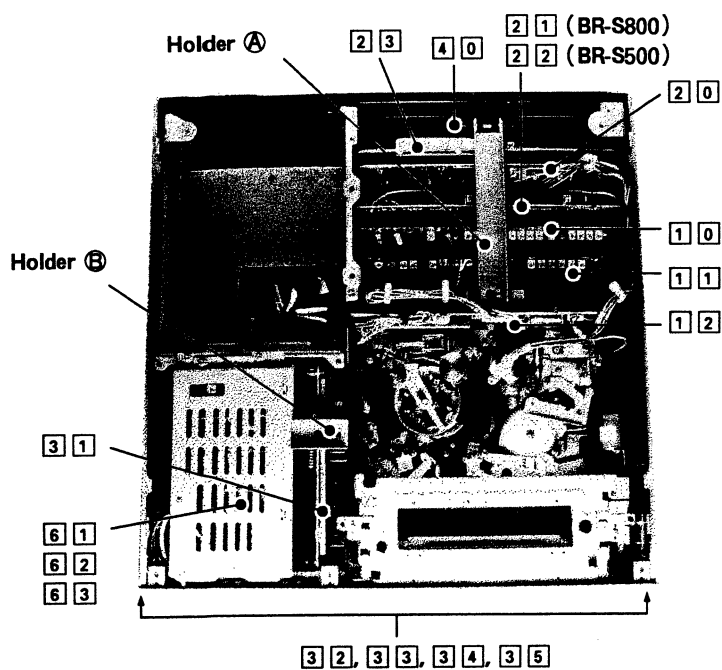


Fig.1-3-1

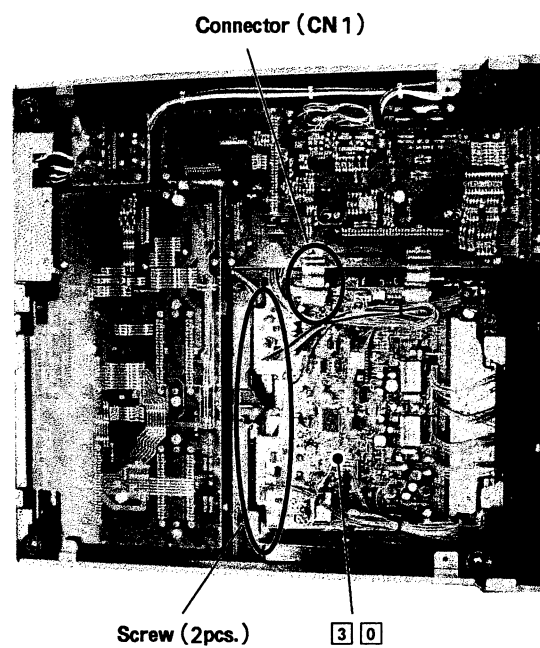


Fig.1-3-2

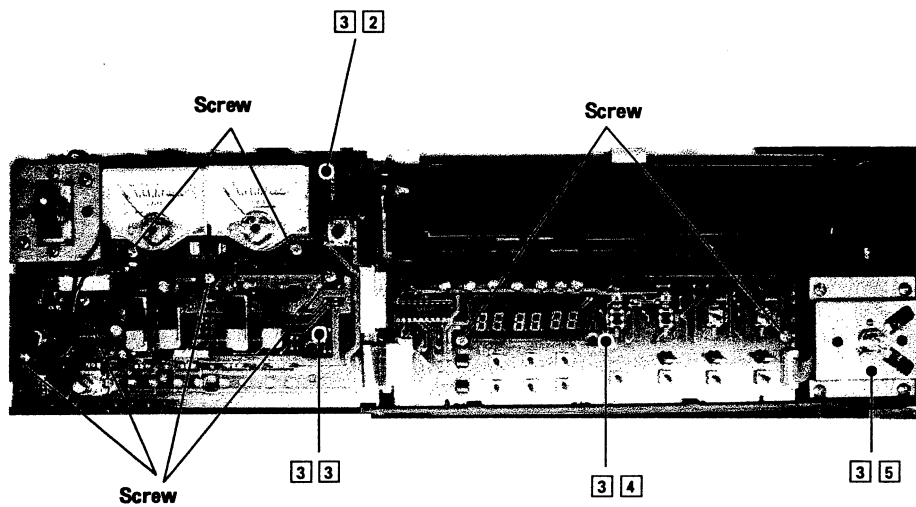


Fig.1-3-3

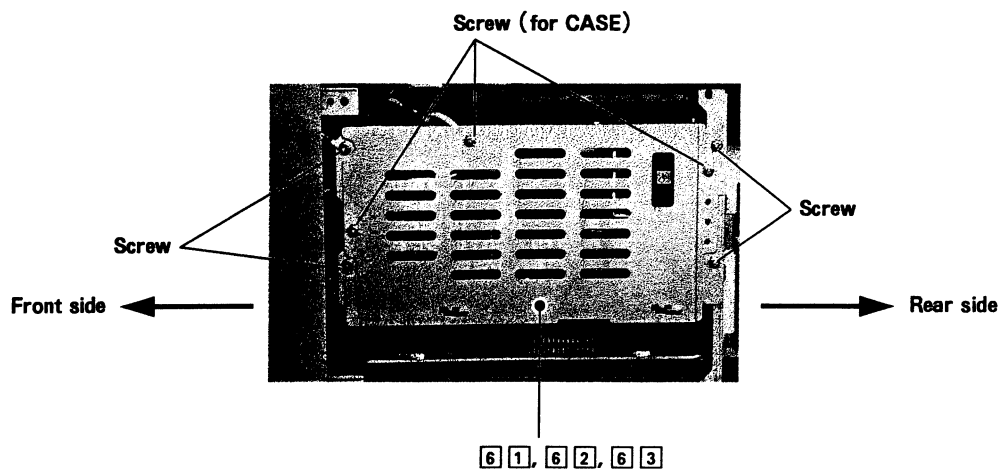


Fig.1-3-4

SECTION 2 MECHANISM ADJUSTMENT

2.1 GENERAL DESCRIPTION

2.1.1 Precaution

- (1) Before use of a soldering iron, make sure to disconnect the power cord of the set from the outlet.
- (2) Do not pull connector cables strongly for disconnecting connectors.
- (3) Do not disturb VRs and other controls unreasonably as the set has trouble of unknown origin.
- (4) When inserting a cassette tape into the cassette housing, don't do it if the set is not placed right such as it is laid on its side, rear, top, or so. Otherwise the cassette housing may be damaged.

2.1.2 Jigs and special tools for mechanism adjustment

The following jigs and special tools are necessary for adjusting the mechanism.

General tools Besides the below special tools and jigs, the following general tools are necessary.

- Nut driver (5.5 mm)
- Hex. keys (0.9 mm, 1.27 mm, 2 mm)
- Ordinary screwdrivers (—) (No. 1, No. 2)
- Phillips head screwdriver (+)
- Spacers (0.1 mm)

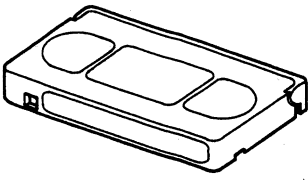
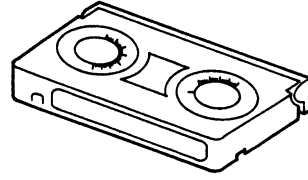
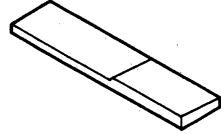
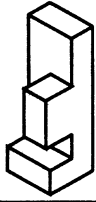

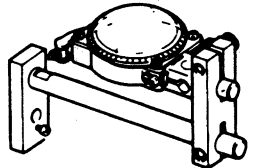
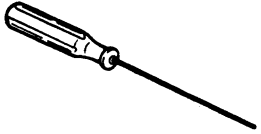
Alignment tape MHPE, MBAE, MBAE-3, MBPE-X	Cassette torque meter PUJ42881/PUJ42881B	Parallel check plate PGJ04035(0.05)/PUJ50204(0.1)	Height gauge PGJ04032
			
Line head wrench PGJ04033	Microchecker PUJ49712-2	Hex. driver PGJ04034(2mm)	
			

Table 2-1-1

2.1.3 Specifications of alignment tapes

•MHPE

Video signal	Audio signal	Application	Remark
VHS (SP mode) Stairstep	6kHz	For check and adjustment of interchangeability. For adjustment of PB switching point.	Stairstep segment of MH-2 tape is substitutable.

•MBAE

Video signal	Audio signal	Application	Remark
CTL signal only	1kHz	For check and adjustment of audio PB circuit.	1 kHz segment of MH-2 tape is substitutable.

•MBAE-3

Video signal	Audio signal	Application	Remark
—	1kHz (Guard band recording)	For rough adjustment of stereo A/C head height.	Tape that MBAE-3 is changed just in the name.

•MBPE-X

Video signal	Audio signal	Application	Remark
Stairstep (SP) (Non-recorded field every 5 frames)	6kHz	For adjustment of X-value.	Tape that MHPE-X is changed just in the name.

2.2 MAINPARTS REPLACEMENT TABLE

Periodic inspection and maintenance are important to ensure the original capacity and reliability of the set. The following table shows just a maintenance and replacement standard that is compiled based on general and average use of the set. In actual, the periods will widely vary depending on environmental and usage conditions.

If the inspection and maintenance work of the following items are improperly performed, it not only shortens the periods but also gives bad influence on the set. Also keep it in mind that rubber parts may deform and age even when the set is not used and the service life of the upper drum is particularly affected by environmental and usage conditions.

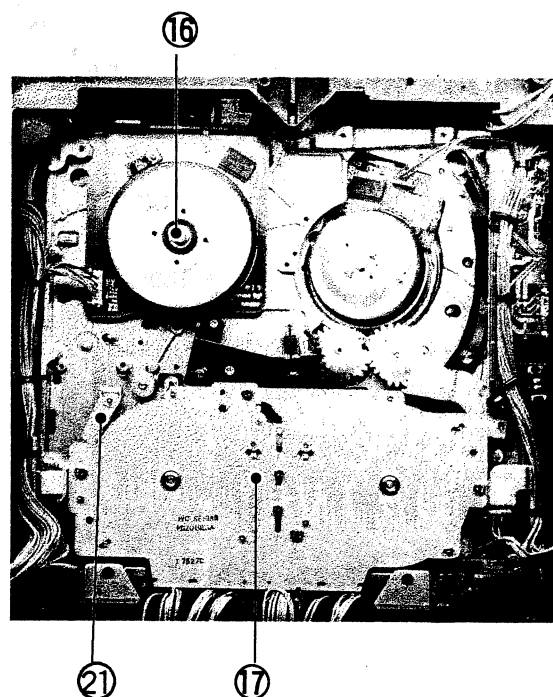
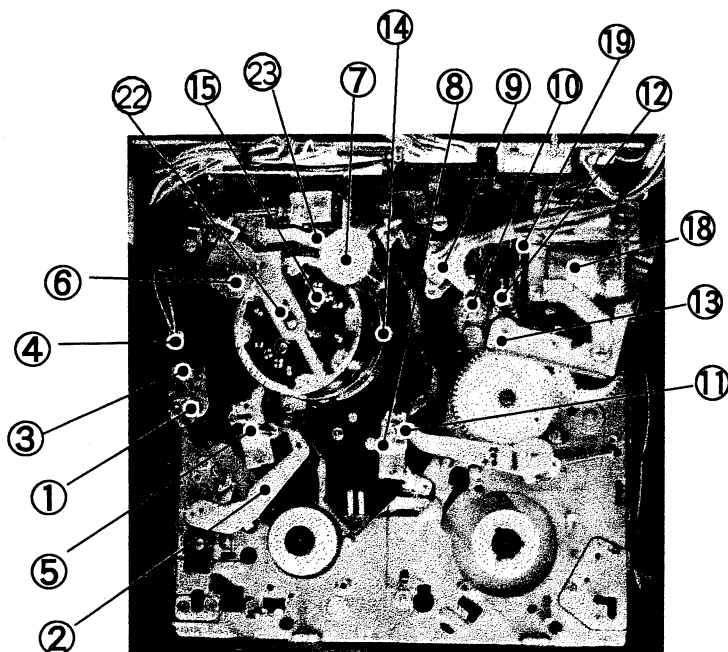
	No.	Part Name	Part Number	Standard service period ※				Ref. Sect.	Remark
				1000	2000	3000	4000		
Tape transport system	①	Supply guide shaft	—	★	★	★	★	—	
	②	Tension arm assembly	PRD43638A-01					2.3.7	
	③	Supply guide roller	PRD43721A					2.7.2	
	④	Full erase head (BR-S800)	PGZ01841					—	
	⑤	Supply pole base assembly	PRD30809A					2.3.13	
	⑥	Supply inertia roller	PGZ01920	★	★	★	●	2.3.2	Included in Drum assembly
	⑦	Take-up inertia roller	PGZ01920-02					2.3.2	Included in Drum assembly
	⑧	T.U. pole base assembly	PRD30811A-02					2.3.13	
	⑨	A/C head	PGZ01840					2.3.6	Excluding A/C head board
	⑩	Take-up guide roller	PRD44151A-01					2.7.3	
	⑪	Guide arm roller assembly	PRD43660A-02					2.7.4	
	⑫	Capstan shaft	—	★	★	★	★	—	
	⑬	Pinch roller arm assembly	PRD43387A-01	○	●	○	●	2.3.8	
	⑭	Drum assembly (BR-S800) Drum assembly (BR-S500)	LDR2003A LDR2004A	★	★	○	●	2.3.5	
	⑮	Upper drum assy (BR-S800) Upper drum assy (BR-S500)	PRD20458B PRD20485B	●	●	●	●	2.3.2 / 2.3.3	Included in Drum assembly
Drive system	⑯	Capstan motor	PGZ01535-01-01				●	2.3.9	
	⑰	Reel motor	PGZ01958A				●	2.3.10	Assembled part
	⑱	Mode motor	PRD44123A				●	2.3.11	
	㉑	Loading belt	PRD30022-17 PRD30022-18	●	●	●	●	—	Motor side Worm gear side
	㉒	Cassette housing	PGS21023A				●	2.3.1	
	㉓	Reel brake	PRD43479A-01		●		●	2.3.12	
Others	㉔	Brush assembly	PRD44288A		●		●	2.3.2	Included in Drum assembly
	㉕	Head cleaner	PQ44837	●	●	●	●	—	Not included in Drum assembly

※ For service hours, follow the indication of the hour meter of the drum in principle.

★=Cleaning
○=Check and Replace if necessary,
or Check and Clean
●=Replacement

2.2.1 Location of main parts

For names of respective parts indicated by numbers, refer to the table on the previous page.



2.2.2 Cleaning

Periodical cleaning of the tape transport system is desirable, however, it is almost impossible to put it into practice on schedule. Therefore, it is strongly recommended to clean the tape transport system when a set is brought in for repair, etc. For cleaning, use fine woven cotton cloth (like cotton shirting) moistened with ethylalcohol.

- (1) Dirty video head causes rough playback picture and non-reproduction of picture in an extreme case.
To clean the video heads, lightly press such cotton cloth as mentioned above to the upper drum while turning the upper drum.

Note:

Do not move the cleaning cloth on the upper drum since the video head is weak against vertical force. Otherwise, the video heads may be damaged.

- (2) Dirty tape guide not only gets the video heads dirty much more but also damages tapes.
- (3) Dirty and dusty brush causes snow noise in playback picture and non-picture reproduction.

2.2.3 Oiling and greasing

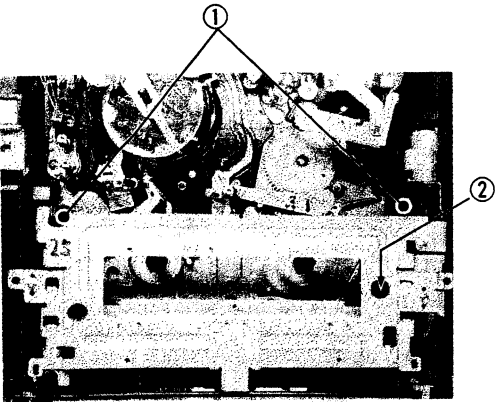
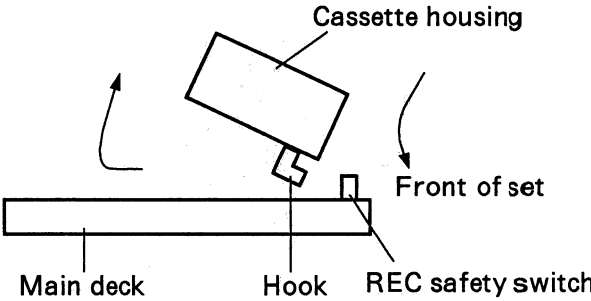
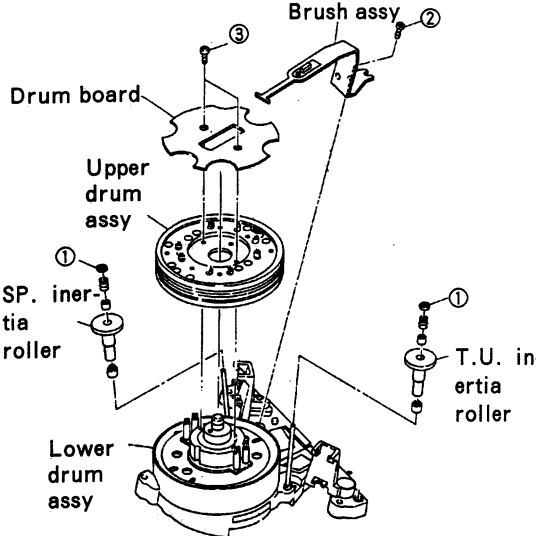
If oil or grease on the other party is dirty and aged in case of parts replacement, wipe it off and apply new oil or grease as well as to do it for new parts.

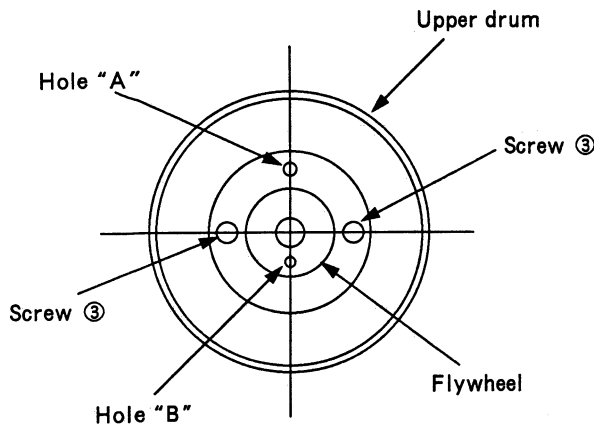
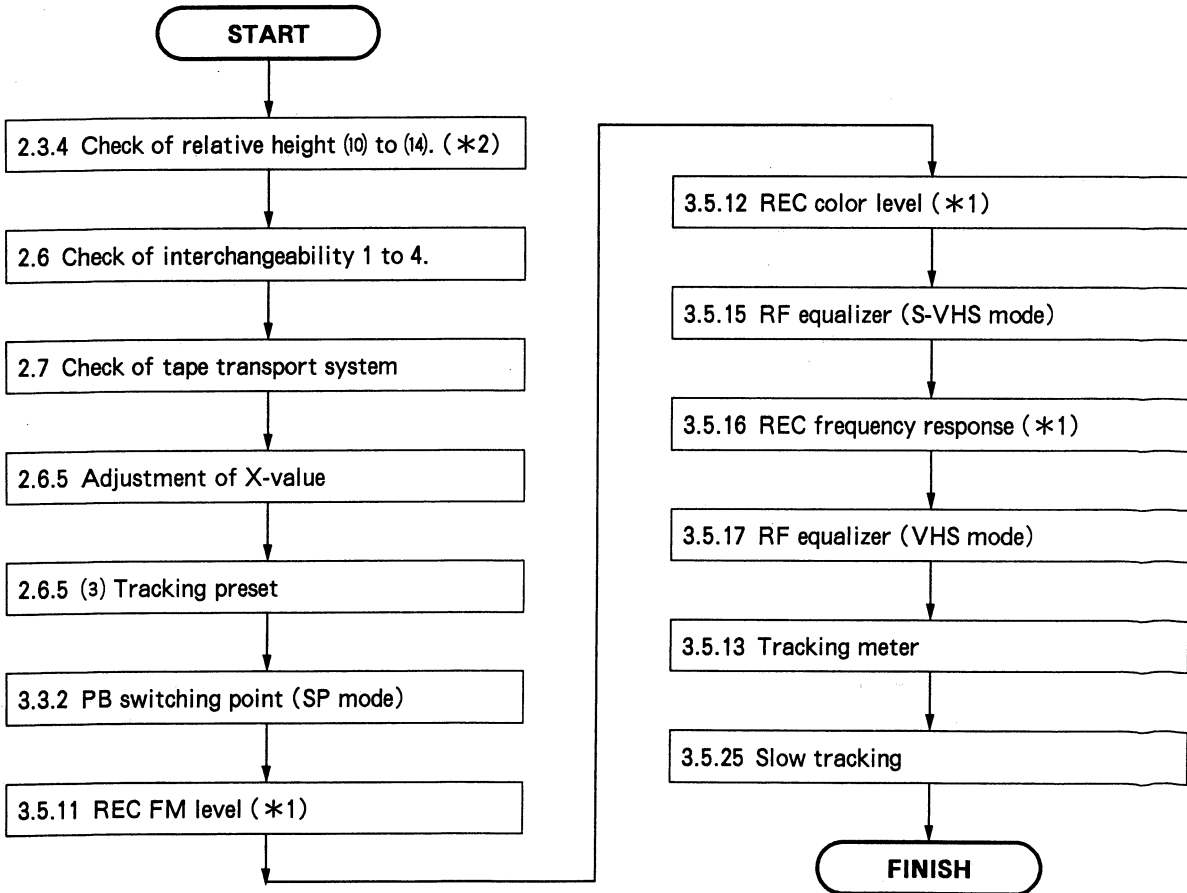
- (1) Oil and grease used in this set are as follows.

Item	Name	JVC Part No.
Oil	Cosmo Hydro HV56	COSMO- HV56
	<General spindle oil (low viscosity) is substitutable>	
Grease	Moriton Grease (Black)	MOS2-C
	Fuloil G-31KAV (light blue)	KANTO- G-31KAV
	FULOIL GB-TS-1 (brass)	KANTO- GB-TS-1

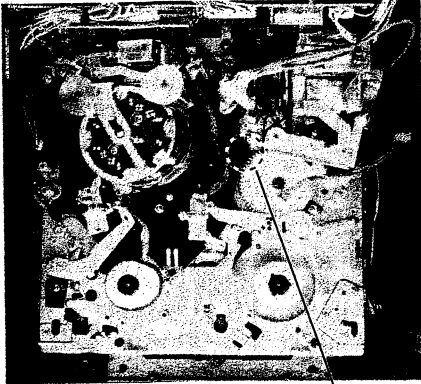
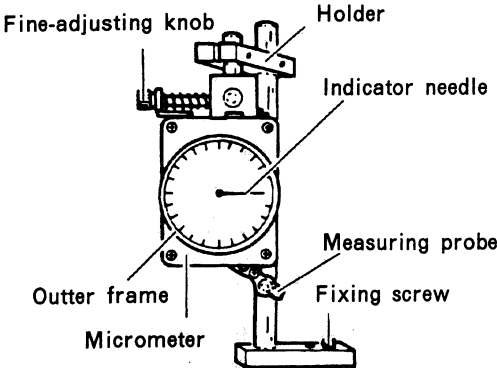
- (2) Grease the control cam every 2000 hours of operation.
- (3) For other parts, apply grease to them every 4000 hours of operation or on parts replacement.

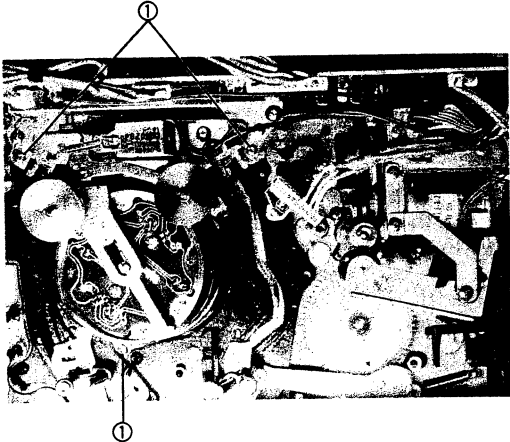
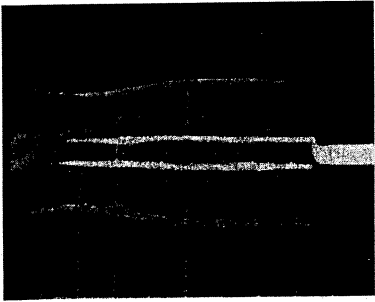
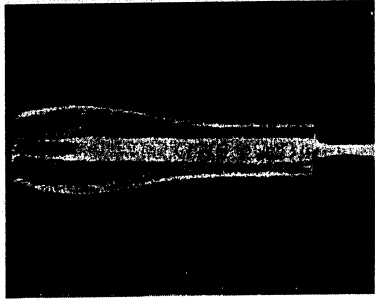
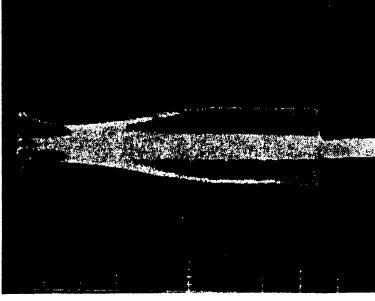
2.3 REPLACEMENT OF MAIN PARTS

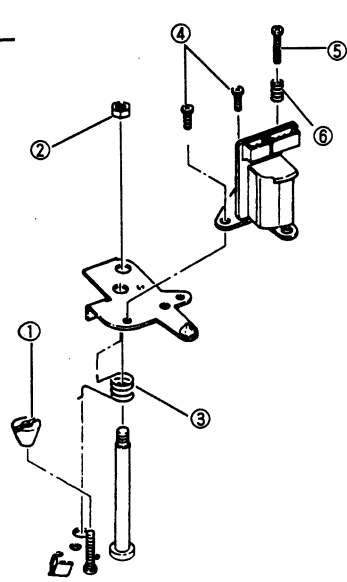
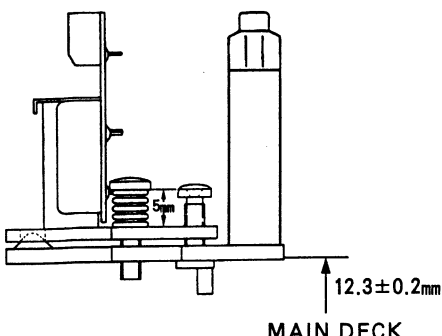
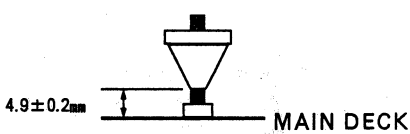
No.	Item	Adjustment & Check
1	<p>Cassette housing assembly</p>  <p>A black and white photograph showing the internal components of a cassette deck. A cassette housing assembly is being removed from the main deck. Two screws are indicated: screw ① is on the top of the housing, and screw ② is on the side of the main deck.</p> <p>Fig.2-3-1 Removal of cassette housing assy</p>	<p>Note: When reinstalling the cassette housing assembly to the set, do it as the front panel is taken off otherwise the REC safety switch may be damaged.</p> <ol style="list-style-type: none"> (1) Take out the front panel assembly. (Section 1.2) (2) Remove two screws ① and one screw ②. (3) Push the cassette housing toward the drum once to release it from the hook, and lift it upward while disconnecting the housing connector and taking it out.  <p>A schematic diagram showing the reinstallation of the cassette housing. The cassette housing is shown being pushed towards the front of the set. The main deck is shown with a hook and a REC safety switch. The front of the set is indicated by an arrow.</p> <p>Fig.2-3-2 Reinstallation of cassette housing assy</p>
2	<p>Removal of upper drum assembly</p>  <p>A detailed diagram showing the removal of the upper drum assembly. The diagram labels the Drum board, Upper drum assy, Lower drum assy, SP. inertia roller, T.U. inertia roller, and Brush assy. Two screws ① are shown on the inertia rollers, and two screws ② are shown on the brush assembly. Two screws ③ are shown on the drum board.</p> <p>Fig.2-3-3 Removal of upper drum assembly</p>	<ol style="list-style-type: none"> (1) Take out the top cover assembly. (Section 1.2) (2) Remove the head cleaner assembly. (3) Remove two slit washers ① and then remove the inertia roller with careful attention to spring, etc. not to lose them. Note: When the slit washer is removed, replace it with new one. (Part No. PQM30017-25) (4) Remove one screw ② and then remove the brush assembly. (5) Unsolder on the DRUM board and remove solders. (6) Remove two screws ③ and take out the upper drum assembly.

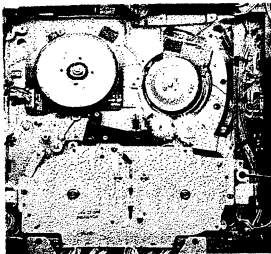
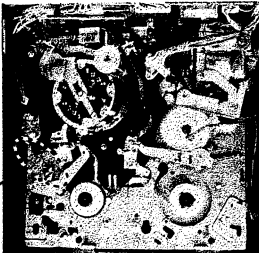
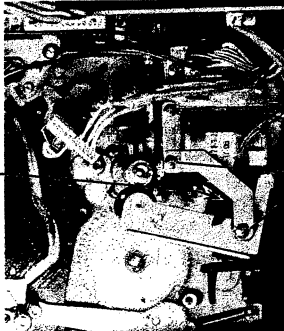
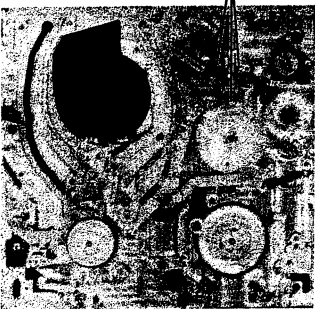
No.	Item	Adjustment & Check
3	<p data-bbox="197 271 624 300">Reinstallation of upper drum assembly</p> <div data-bbox="197 322 788 748">  <p data-bbox="232 389 335 418">Hole "A"</p> <p data-bbox="608 322 733 351">Upper drum</p> <p data-bbox="696 456 788 486">Screw ③</p> <p data-bbox="197 613 301 642">Screw ③</p> <p data-bbox="288 725 392 754">Hole "B"</p> <p data-bbox="624 680 718 710">Flywheel</p> </div> <p data-bbox="221 786 773 815">Fig.2-3-4 Reinstallation of upper drum assy</p> <p data-bbox="205 943 508 972">— Check and adjustment —</p> <div data-bbox="241 994 1423 1890">  <pre> graph TD START([START]) --> 2.3.4[2.3.4 Check of relative height (10) to (14). (*2)] 2.3.4 --> 2.6[2.6 Check of interchangeability 1 to 4.] 2.6 --> 2.7[2.7 Check of tape transport system] 2.7 --> 2.6.5[2.6.5 Adjustment of X-value] 2.6.5 --> 2.6.5_3[2.6.5 (3) Tracking preset] 2.6.5_3 --> 3.3.2[3.3.2 PB switching point (SP mode)] 3.3.2 --> 3.5.11[3.5.11 REC FM level (*1)] 3.5.11 --> 3.5.12[3.5.12 REC color level (*1)] 3.5.12 --> 3.5.15[3.5.15 RF equalizer (S-VHS mode)] 3.5.15 --> 3.5.16[3.5.16 REC frequency response (*1)] 3.5.16 --> 3.5.17[3.5.17 RF equalizer (VHS mode)] 3.5.17 --> 3.5.13[3.5.13 Tracking meter] 3.5.13 --> 3.5.25[3.5.25 Slow tracking] 3.5.25 --> FINISH([FINISH]) </pre> </div>	<ol style="list-style-type: none"> (1) Clean the respective contact surfaces of upper drum assembly and the lower drum assembly with alcohol. (2) Install the upper drum assembly so as to face the hole "A" ($\phi 2.7\text{mm}$) of the upper drum and the hole "B" ($\phi 1.6\text{ mm}$) of the flywheel right opposite to each other (at an angle of 180. For fixing them, tighten the screws ③ with a torque of 0.441 to 0.49 N.m. (3) Proceed to check the "Centering of upper drum" (subsection 2.3.4, steps (1) through (9)). (4) After confirming the upper drum centering, solder the DRUM board. (5) Reassemble the brush assembly and the head cleaner assembly to the drum assembly. (6) After the adjustment, proceed to the following check and adjustment.

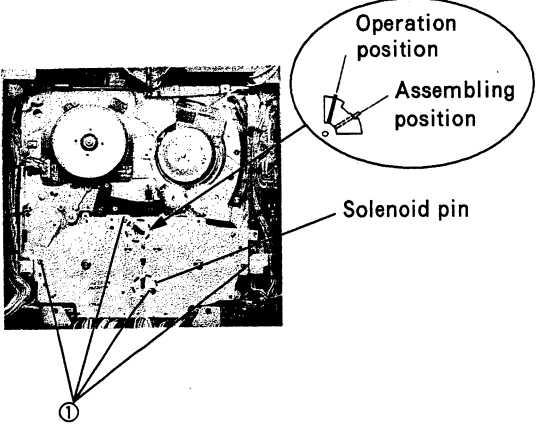
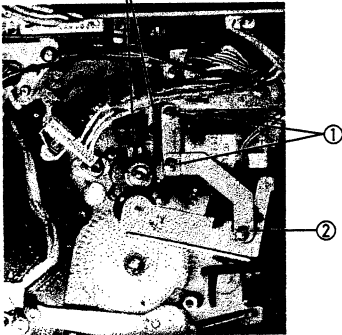
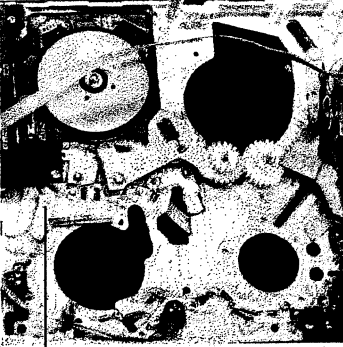
*1 : Unnecessary for BR-S500
 *2 : Unnecessary for replacing drum assembly

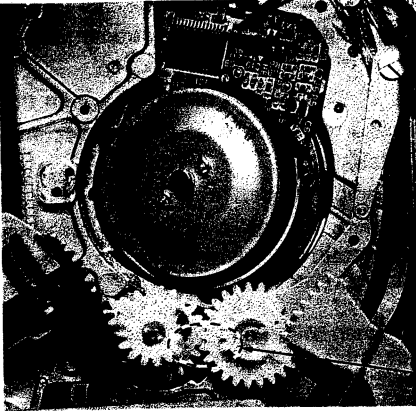
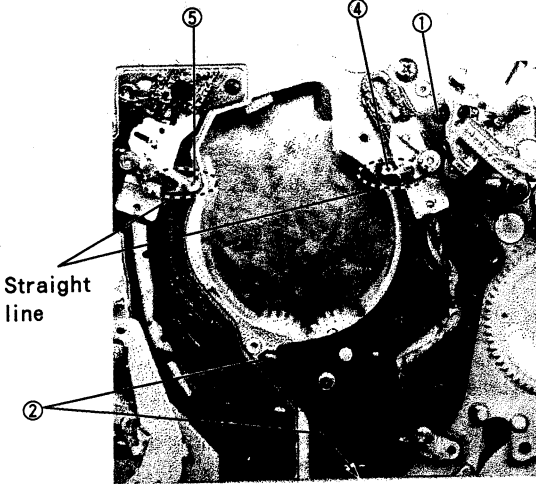
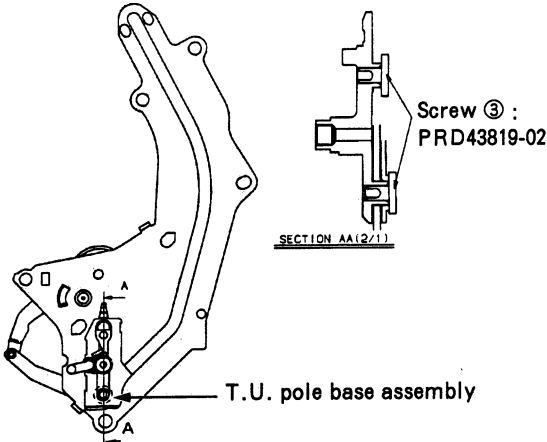
No.	Item	Adjustment & Check
4	<p data-bbox="169 271 749 360">Centering of upper drum If the upper drum is installed being deviated from the center of the drum shaft, it causes jitter, etc. When the upper drum is replaced, make sure that no wobbling is observed in the upper drum rim.</p>  <p data-bbox="471 813 722 835">Microchecker mounting place</p> <p data-bbox="244 864 696 891">Fig.2-3-5 Mounting of microchecker</p> <div data-bbox="189 936 749 2085"> <p data-bbox="189 947 624 974">▪ Cautions on handling of microchecker</p> <ol data-bbox="189 999 749 1440" style="list-style-type: none"> ① Keep the microchecker out of any shock or strong vibration since it is a high precision instrument. ② Do not apply unnecessary force to the microchecker's probe. ③ Although the outer ring of the microchecker can be turned in a range of 0 graduations, do not turn it with strong force (more than 300 g-cm). ④ Be careful not to touch the microchecker's probe with the heads, particularly with the video heads. ⑤ On setting the microchecker, make sure that the working direction of the probe points at the center of the upper drum. ⑥ If rubbing or grating sound occurs in measuring, it results from bad setting or abnormal contact of the microchecker. Check that there is neither dust nor foreign substance on the upper drum and tip of the probe.  <p data-bbox="307 1995 644 2022">Microchecker : PUJ49712-2</p> </div>	<p data-bbox="827 371 1459 450">Note: For centering the upper drum, a setscrew (SDSP2610Z) is necessary besides a microchecker.</p> <ol data-bbox="780 477 1459 1541" style="list-style-type: none"> (1) Turn the mode motor counterclockwise (toward the rear side) to enter the set into the loading end state. (2) Remove the fixing screw from the base of the microchecker. (3) Set the microchecker holder at the place shown in Fig. 2-3-5 and fix it with a screw (SDSP2610Z). Notes: <ul data-bbox="804 685 1459 813" style="list-style-type: none"> • It is allowed to mount the microchecker holder at the place where the earth plate is installed under the cassette housing assembly. • If there is no internal thread for the specified screw at the place shown in the figure, use a tapping screw (SDST2608Z) to fix the microchecker holder. (4) Mount the microchecker with care not to knock the upper drum with it. (5) Slowly turn the microchecker's fine adjustment knob clockwise so that the pointer indicates "0" graduation. Pointer adjustment is also possible by turning the outer ring of the microchecker, but the adjustable range is limited within 0 graduations. To apply the microchecker to the drum assembly, place it between the 4th and 5th grooves of the drum from the bottom. (6) Turn the upper drum gently with care not to apply lateral pressure to it. (Turn it with a paper string, for example). If the pointer deflects, it must be within micron at maximum. (7) When the pointer deflection exceeds micron, turn the fine adjustment knob counterclockwise and remove the probe from the upper drum. Then, loosen two screws retaining the upper drum while adjusting the upper drum position slightly. Tighten the two screws again. (8) Repeat check of pointer deflection and adjustment of the upper drum position until pointer deflection becomes within micron. (9) When dismantling the microchecker, turn the fine adjustment knob counterclockwise first. <p data-bbox="827 1563 1114 1585">— Check of relative height —</p> <ol data-bbox="780 1615 1459 2051" style="list-style-type: none"> (10) Turn on the power switch. (11) Connect the oscilloscope to TP101(:8F) on the 1 2 AV PRE/REC board and play back the MHPE alignment tape. (12) Turn the TRACKING VR to check that waveform of CH1 and CH2 become maximum at the same time. (13) If there is a remarkable time lag and level difference between the two channels, remove the upper drum once and clean the upper surface of the flywheel of the lower drum. Fit the upper drum again and repeat the above steps (1) through (12). (14) If the result of repeated adjustments of the steps (1) through (13) does not meet the requirement, replacement of the drum assembly is recommended.

No.	Item	Adjustment & Check
5	<p>Drum assembly (Upper drum + Lower drum + Inertia rollers + Brush)</p>  <p>Tightening torque: 0.49 N-m (5kg-cm)</p> <p>Fig.2-3-6 Removal of drum assembly</p>	<p>Note: When holding the drum assembly, make sure not to touch the brush assembly. When replacing the pole base, do it as the drum assembly is removed.</p> <ol style="list-style-type: none"> (1) Remove the ①② AV PRE/REC board. (Section 1.3) (2) Remove the head cleaner assembly. (3) Disconnect the connector (bottom side) and remove three screws ①, then remove the drum assembly to replace it with another. (4) After installation of a new drum assembly is complete, reinstall the AV PRE/REC board assembly and the head cleaner assembly. Then, conduct the check and adjustment according to the flowchart appearing on page 2-5.
	<p>— Reference — Before replacing drum assembly.</p>  <p>Tracking center</p>  <p>Tracking (-)</p>	<ol style="list-style-type: none"> (1) Connect the oscilloscope to TP101(:8F) on the ①② AV PRE/REC board and trigger it externally with signal of TP102(:7G) on the same board. (2) Play back the MHPE alignment tape while observing the waveform with turning the TRACKING VR. (3) When the waveform in the supply side shows such a tendency as shown in the figures, the drum lead is worn out and needs to replace.  <p>Tracking (+)</p>

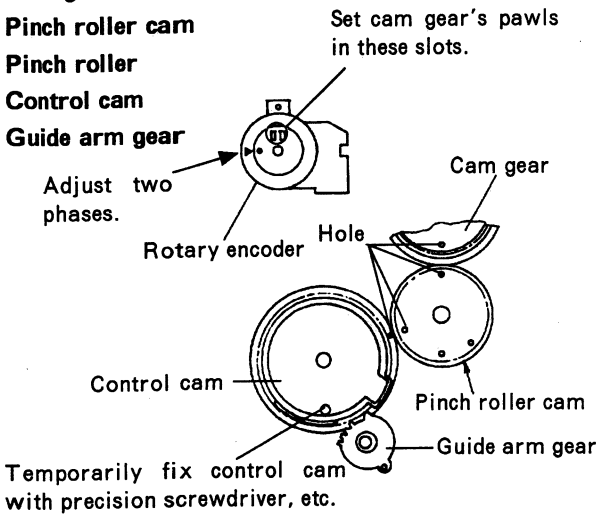
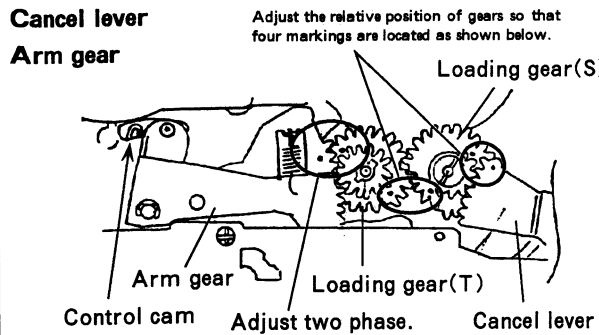
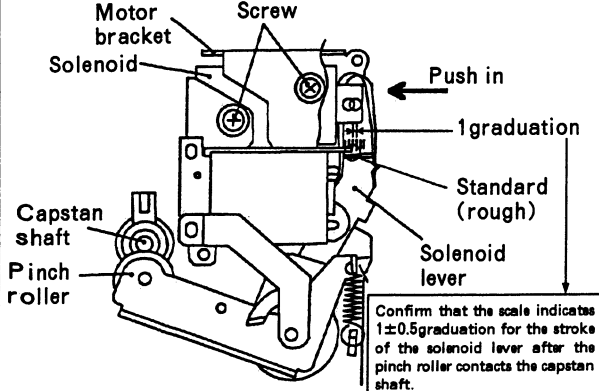
No.	Item	Adjustment & Check
6	<p>A/C head — Removal —</p>  <p>Fig.2-3-7 Removal of A/C head</p>	<p>(1) Tools to prepare:</p> <ul style="list-style-type: none"> • Ordinary screwdriver (—) • Nut driver : 5.5mm <p>(2) Disconnect the connectors from the A/C HEAD board.</p> <p>(3) Remove the taper nut ① for X-value adjustment.</p> <p>(4) Remove the nut ② and then remove the A/C head together with the head base with care not to lose the spring ③.</p> <p>(5) Remove two screws ④ and a screw ⑤ to remove the A/C head. At that time pay careful attention to the spring ⑥ not to lose it.</p> <p>(6) Unsolder the A/C HEAD board and replace the A/C head with new one.</p>
	<p>— Reinstallation —</p>  <p>Fig.2-3-8 Temporary installation of A/C head</p>	<p>(7) Before assembling the A/C head to the main deck, conduct rough adjustment of the head height as shown in Fig. 2-3-8.</p> <p>(8) Assemble the A/C head and its peripheral parts to the main deck in the reverse order of the disassembly.</p> <p>(9) When fitting the taper nut, temporarily adjust the height as shown in Fig. 2-3-9.</p>  <p>Fig.2-3-9 Temporary fitting of taper nut</p>
	<p>— Check and adjustment —</p>	<p>(10) The check and adjustment should be proceeded in the following order.</p> <p>Note: <i>For tape transport check to be conducted before adjustment, don't use any alignment tape but use a general recording tape since there is a fear of tape getting damaged.</i></p> <ol style="list-style-type: none"> ① Adjustment of A/C head (see 2.6.4) ② Check of FM waveform (see 2.6.2) ③ Check of X-value (see 2.6.5) ④ Check of tape transport system (see 2.7) ⑤ Automatic adjustment of audio circuit (see 3.4)

No.	Item	Adjustment & Check
7	<p data-bbox="200 271 456 293">Tension arm assembly</p>  <p data-bbox="566 524 711 546">Slit washer ①</p> <p data-bbox="210 680 793 714">Fig.2-3-10 Tension arm assembly (bottom)</p>  <p data-bbox="264 1005 354 1028">Spring ②</p> <p data-bbox="260 1106 751 1140">Fig.2-3-11 Tension arm assembly (top view)</p>	<ol style="list-style-type: none"> (1) Remove the cassette housing assembly. (Section 2.3.1) (2) Open the SERVO/M-CTL board at an angle of 90° (to stand it upright). (3) Remove a slit washer ①. (4) Remove a spring ② engaged between the tension arm assembly and the spring adjust assembly, and then lift the tension arm assembly upward to remove it. <p data-bbox="859 557 1350 629">Note: Replace the slit washer removed once with new one. (Part No. PQM30017)</p> <ol style="list-style-type: none"> (5) Reassemble the tension arm assembly and its peripheral parts to the main deck in the reverse order of the disassembly. (6) After replacement, conduct the following check and adjustment. <ol style="list-style-type: none"> ① Adjustment of tape transport system (see 2.7) ② Adjustment of reel servo circuit (see 2.5)
8	<p data-bbox="210 1189 503 1211">Pinch roller arm assembly</p>  <p data-bbox="260 1408 299 1431">rail</p> <p data-bbox="628 1413 660 1435">①</p> <p data-bbox="233 1610 777 1644">Fig.2-3-12 Removal of pinch roller arm assembly</p>	<p data-bbox="859 1184 1492 1234">Note: Proceed to do the following work in the Assembly mode (see 2.4.1).</p> <ol style="list-style-type: none"> (1) Take out the top-cover assembly. (2) Remove two screws ① and lift the pinch roller arm assembly upward to remove it. (3) When reinstalling, do it so as to position the cam of the pinch roller assembly on the rail of the solenoid bracket in the assembly mode.
9	<p data-bbox="210 1671 377 1693">Capstan motor</p>  <p data-bbox="534 1688 550 1711">①</p> <p data-bbox="275 2069 735 2103">Fig.2-3-13 Removal of capstan motor</p>	<ol style="list-style-type: none"> (1) Take out the bottom-cover assembly. (2) Open the M-CTL/SERVO board so as to tilt it at an angle of 90°. (3) Remove the pinch roller assembly referring to 2.3.8. (4) Remove three screws ① and disconnect all connectors, and then remove the capstan motor. (5) After replacement, conduct the adjustments of FG duty ratio and stop servo. (Refer to 3.3.1.)

No.	Item	Adjustment & Check
10	<p>Reel motor</p>  <p>Fig.2-3-14 Removal of reel motor</p>	<ol style="list-style-type: none"> (1) Position the sensor LED at the assembling position as shown in Fig. 2-3-14. (2) Turn the mode motor counterclockwise (toward rear side) to enter the set into the loading end state. (3) Remove four screws ① and remove the reel motor assembly. (4) Set a sensor LED of the new reel motor at the assembling position. (5) Position the sensor LED at the operation position. (6) After replacement, conduct the following check and adjustment. <ul style="list-style-type: none"> • Adjustment of reel servo circuit (see 2.5.3 to 2.5.6) • Adjustment of FG duty ratio (see 3.3.1).
11	<p>Mode motor</p>  <p>Fig.2-3-15 Removal of mode motor</p>	<ol style="list-style-type: none"> (1) Disengage the belt from the motor pulley. (2) Remove two screws ① and one screw ②, and then remove the mode motor together with the motor bracket. (3) Disconnect a connector from the mode motor and remove it.
12	<p>Reel brake assembly</p>  <p>Slit washer : PQM30017-6</p> <p>Fig.2-3-16</p>	<ol style="list-style-type: none"> (1) Remove the SERVO/M-CTL ③① board. (2) Remove the reel motor. (Refer to 2.3.10.) (3) Remove a slit washer and then reel brake assembly. Note: When a slit washer is once removed, replace it with new one (PQM30017-6). <p>Fig.2-3-17</p>

No.	Item	Adjustment & Check
13	<p>Pole base assembly and loading arm assembly</p>  <p>Fig.2-3-18 Installation of supply pole base assy</p>  <p>Fig.2-3-19 Removal of take-up pole base assy</p>  <p>Fig.2-3-20 Removal of take-up pole base assy</p>	<p>(1) Remove the drum assembly. (Refer to 2.3.5.)</p> <p>(2) — Removal of supply pole base assembly. —</p> <ol style="list-style-type: none"> 1 Turn the loading motor counterclockwise to set the mechanism to the loading end position. 2 Remove the stopper and lift the pole base assembly to remove it. (Fig.2-3-18) <p>(3) — Removal of take-up pole base assembly. —</p> <ol style="list-style-type: none"> 1 Remove a screw ④. 2 Turn the mode motor in the loading direction (toward the rear side) to set the mechanism in a loading position that the slant pole is aligned with the previous position of the screw ④ in a straight line. (Fig.2-3-19) 3 Remove a screw ① and two screws ②, and remove the take-up loading assembly. (Fig.2-3-19) 4 Remove two screws ③ and lift the take-up pole base assembly upward to remove it. (Fig.2-3-20) <p>(4) When reassembling, proceed as mentioned below.</p> <ol style="list-style-type: none"> 1 Align the supply slant pole with the screw ⑤ in a straight line. (Fig.2-3-19) 2 Set the take-up slant pole in the position mentioned in the above step (2), and reinstall the loading assembly to the mechanism. 3 Confirm that the supply slant pole and the take-up slant pole are aligned with the screws ④ and ⑤ in a straight line. <p>(5) Reinstall the drum assembly.</p> <p>(6) Load the mechanism with a general recording tape, which you don't mind if gets damaged, and check the mechanism operation.</p>
		<p>(1) — Removal of supply loading arm assembly —</p> <ol style="list-style-type: none"> 1 Remove the reel motor. 2 Remove the END SENSOR board. 3 Remove the cancel lever. (slitt washer: PQM30017-12) 4 Remove the STOPPER retaining the supply pole base assembly to the loading arm. (At that time, pay attention to the collar inserted between the pole base assembly and the loading arm not to lose it.) 5 Disengage the pawl of the gear from the shaft, and remove the supply loading arm assembly. <p>(2) — Reinstallation of loading arm assembly —</p> <ol style="list-style-type: none"> 1 Turn the mode motor to set the mechanism in the loading end state. 2 Engage the supply loading gear so that the phases of the take-up loading gear and the supply loading gear are adjusted as shown in the figure. (Fig.2-3-18) 3 Reassemble the cancel lever, the END SENSOR board and the reel motor to the mechanism.

2.4 ASSEMBLING OF MECHANISM

No.	Item	Adjustment & Check
1	<p>There is a close relation between the rotary encoder and the mechacon circuit in the mechanism of this set, namely, operation of the mechanism components is determined and conducted according to rotation angle of the rotary encoder, in other words, turning angle of the cam gear. Therefore, if there is any component part installed abnormally in the mechanism, it causes malfunction of the mechanism.</p> <p>Disassembly and reassembly of mechanism parts of this set must be performed in the assembly mode, in which the pole base assembly is once returned to the most reel side and then the mode motor is turned clockwise (toward front side) to position the hole of the control cam at the same angle as that of the main deck.</p> <p>Under those circumstances, make sure to conduct the following work in the assembly mode.</p> <p>Cam gear Pinch roller cam Pinch roller Control cam Guide arm gear</p>  <p>Temporarily fix control cam with precision screwdriver, etc.</p> <p>Fig.2-4-1 Assembling position</p>	<ol style="list-style-type: none"> (1) Adjust the phase of the control cam so that its hole overlaps the hole of the main deck, and temporarily fix the control cam with a precision screwdriver, etc. (2) As the holes of the pinch roller cam are positioned as shown in Fig. 2-4-1, assemble the pinch roller cam to the mechanism. (3) Fit the pinch roller to the mechanism. (4) Adjust the phase of the rotary encoder as shown in the figure and engage the cam gear with the pinch roller cam taking care of its phase. (5) Points of the work <ol style="list-style-type: none"> ① Fix the control cam with a precision screwdriver, etc. to prevent it from rotating. ② Fit the cam gear's pawl into the dimple of the rotary encoder.
2	<p>Loading gear (Supply) Loading gear (Take-up) Cancel lever Arm gear</p>  <p>Adjust two phase.</p> <p>Fig.2-4-2</p>	<ol style="list-style-type: none"> (1) Assemble the two loading gears (supply and take-up), cancel lever and arm gear so that the four holes of them are positioned as illustrated. (2) Rotate the mode motor in the loading direction (toward the rear side) by about 12 to 14 turns. (3) Engage the arm gear with the take-up loading gear so that they are so positioned as their phases set as illustrated.
3	<p>Pinch roller solenoid position</p>  <p>Confirm that the scale indicates 1 ± 0.5 graduation for the stroke of the solenoid lever after the pinch roller contacts the capstan shaft.</p> <p>Fig.2-4-3</p>	<ol style="list-style-type: none"> (1) Turn the mode motor in the direction of loading (toward the rear side) to set the mechanism in the loading end state. (2) Turn the mode motor further in the same direction (rearward) to move the pinch roller arm to the downmost position. (3) Push the solenoid lever (in the direction of the arrow) to make the pinch roller contact the capstan shaft. (4) Push the solenoid lever moreover from the position of the above step (3), and make sure that the stroke (additional movement of the solenoid lever) at that time is 1 ± 0.5 graduation on the scale on the solenoid lever. (5) If the stroke is out of 1 ± 0.5 graduation, loosen the setscrews and adjust the position of the solenoid lever to meet the requirement.

2.5 ADJUSTMENT OF REEL SERVO CIRCUIT

Note : The test point of D. FF output is TP102(:7G) on the AV PRE/REC board.

No.	Item	Adjustment & Check
<p>When setting back the cassette torque meter, make sure to do it in the Search ($\times 11$) mode. Don't do it in the FF, REW or Reel Search mode, otherwise the cassette torque meter may be damaged.</p> <p>If the SHIFT(+) or SHIFT(-) button is pressed in torque adjustment, the torque changes about 2 gr-cm every time it is pressed. If the cassette torque meter reaches the tape end or the tape beginning in the following adjustment, make a fresh start from the step (1).</p> <p>Test points and adjustment parts appearing in the following are located on the SERVO/M-CTL board unless otherwise specified.</p>		

1 Adjustment of tension sensor position

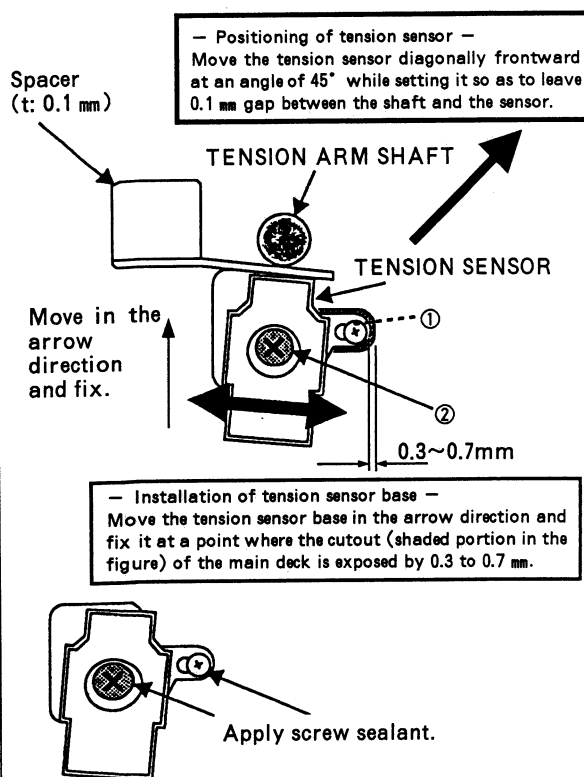


Fig.2-5-1 Positioning of tension sensor

- (1) Required jigs:
 - Spacer (0.1 mm) or the earth plate (PRD44276) on the sub-deck.
- (2) Turn off the power switch and remove the cassette housing assembly.
- (3) Turn the mode motor counterclockwise (toward rear side) to set the mechanism in the loading end state.
- (4) Loosen the setscrew ① and adjust the tension sensor base position so that the its relative position to the cutout of the main deck is as shown in the figure. Then, tighten the setscrew ①. On fixing the tension sensor base, move it to the utmost end in the direction of the arrow.
- (5) Slightly loosen the setscrew ②.
- (6) Insert a spacer of 0.1 thick between the tension sensor and tension arm shaft as shown in the figure. Move the tension sensor in the diagonally frontward direction (as shown by the slant arrow) while adjusting the gap width to be 0.1 mm. Then, tighten the setscrew ②.
- (7) Apply screw sealant onto the setscrews ① and ②.
- (8) After the above adjustment, proceed to do the following adjustments.
 - ① Adjustment of tension bias and gain (see 2.5.2)
 - ② Adjustment of back tension in play mode (see 2.5.3)
 - ③ Adjustment of reverse ($\times 1$ speed) torque (see 2.5.5)
- (9) When all of the above are over, reinstall the cassette housing to the mechanism.

No.	Item	Check point	Adjustment parts	Signal	Mode	Adjustment and Check
2	Tension bias and gain adjustment	TP22 : 14D (MCTL/ SERVO)	R222 : 14B R214 : 14C (MCTL/ SERVO)	—	E-E	<ol style="list-style-type: none"> (1) Turn the mode motor counterclockwise by hand to set the mechanism into the loading end state. (2) Make sure that the tension arm moves to the limit and touches the guide roller. (3) Adjust R222 to obtain 0.00 to 0.10 V as the output of TP22. <p>Note: The test points and VRs can be seen if the side cover (mechanism deck side) is taken off.</p> (4) Utilizing the flat portion of the parallel check plate, align the supply guide rollers 1, 2 and tension pole in a straight line. (5) Adjust R214 to obtain 1.75 to 1.95 V as the output of TP22.

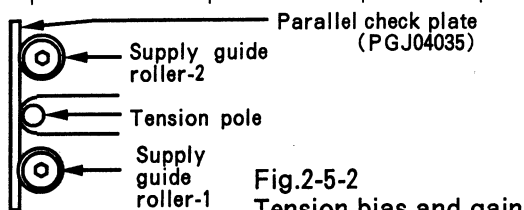
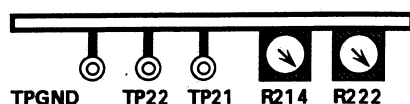


Fig.2-5-2 Tension bias and gain



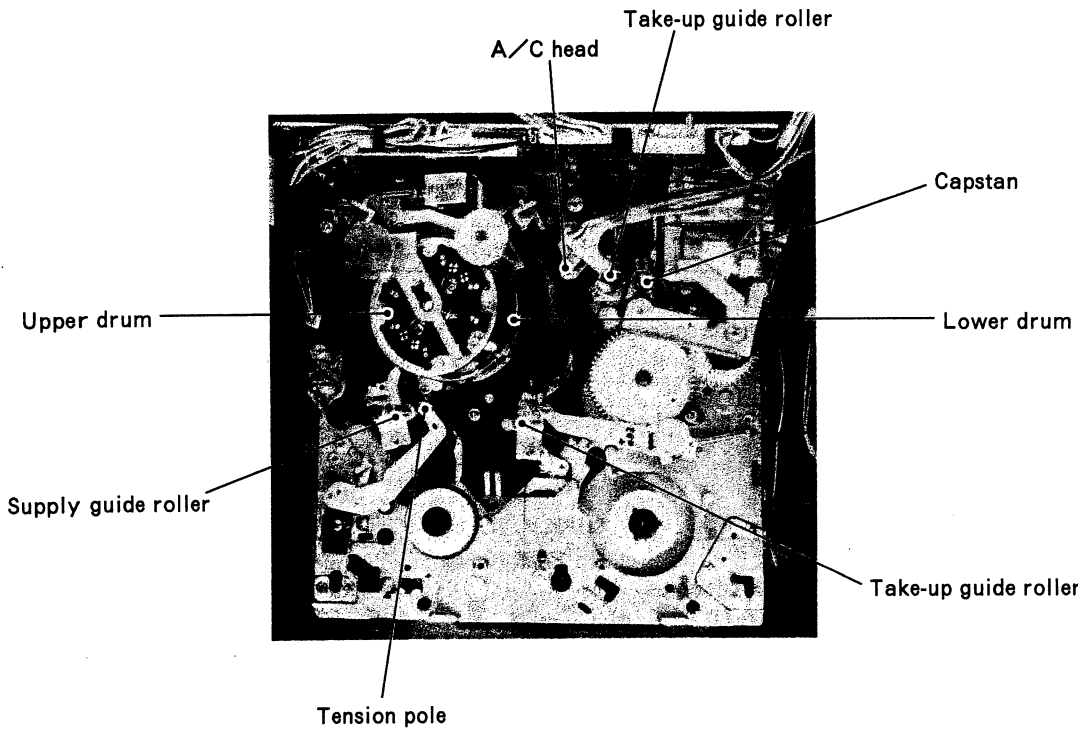
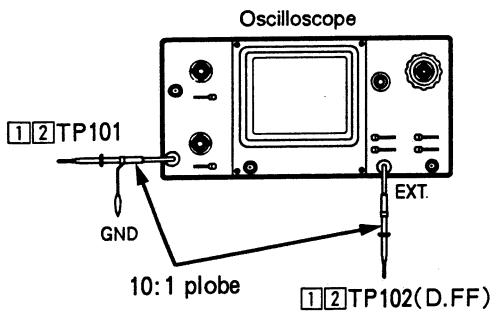
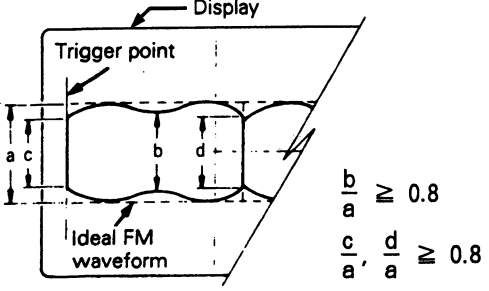
Arrangement of TPs and VRs on SERVO/M-CTL board (Exposed portion when side cover is removed)

Note : The test point of D. FF output is TP102(:7G) on the AV PRE/REC board.


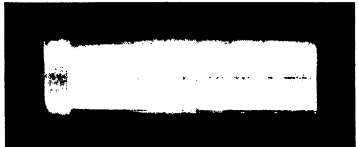
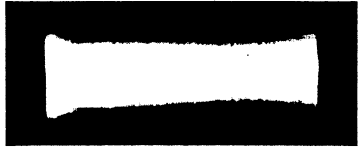

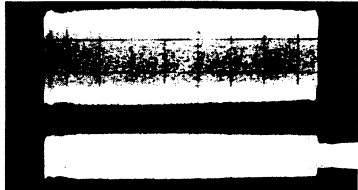
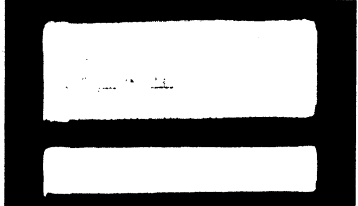
No.	Item	Check point	Adjustment parts	Signal	Mode	Adjustment and Check					
3	Back tension in play mode	Cassette torque meter (PUJ42881)	IN/+SHIFT button (up) OUT/-SHIFT button (down)	—	adjut mode "0 C"	<p>(1) Take the cassette tape out of the set and then turn off the power switch.</p> <p>(2) Within 2 sec after the counter display is on, press the COUNTER RESET, FF and REW buttons simultaneously and "00 00" appears in the counter display to indicate that the mechanism has entered the adjustment mode.</p> <p>(3) Connect a digital voltmeter to TP22 on the SERVO/M-CTL board.</p> <p>(4) Press the MENU or SET button to select the adjustment of "0C", which will appear in the counter display.</p> <p>(5) Set the cassette torque meter in the cassette housing and confirm that the back tension meets the specifications.</p> <p>(6) If not, adjust it again with the IN/+SHIFT (UP) or OUT/-SHIFT (DOWN) button.</p> <p><i>The following adjustments must be conducted when the spring of the tension arm is replaced.</i></p>					
		<table border="1"> <thead> <tr> <th>MODEL</th> <th>BACK TENSION</th> </tr> </thead> <tbody> <tr> <td>BR-S800</td> <td>58±2 g-cm</td> </tr> <tr> <td>BR-S500</td> <td>63±2 g-cm</td> </tr> </tbody> </table> <p>Table2-5-1 Table of back tension</p>					MODEL	BACK TENSION	BR-S800	58±2 g-cm	BR-S500
MODEL	BACK TENSION										
BR-S800	58±2 g-cm										
BR-S500	63±2 g-cm										
		TP22 :14D (MCTL/ SERVO)	Spring adjust lever	—	PB						
4	<p>Loading torque Adjust loading torque according to the following procedure.</p> <p>Required instrument • Cassette torque meter (PUJ42881)</p>										
<pre> graph TD START([START]) --> Power[Power on (no cassette tape)] Power --> Buttons[Within 2 sec after the counter display is on, press the COUNTER RESET, FF and REW buttons simultaneously.] Buttons --> Mode[Adjustment mode "0 B"] Mode --> Setup[Set the cassette torque meter and enter the mechanism into the Play mode.] Setup --> Decision{SUPPLY TORQUE X : 30±3g-cm} Decision -- NG X < 27g-cm --> PushIn[PUSH IN/+SHIFT] Decision -- NG X > 33g-cm --> PushOut[PUSH OUT/-SHIFT] Decision -- OK --> FINISH([FINISH]) PushIn --> Decision PushOut --> Decision </pre>											

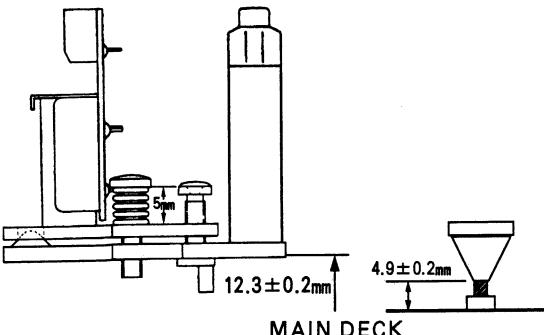
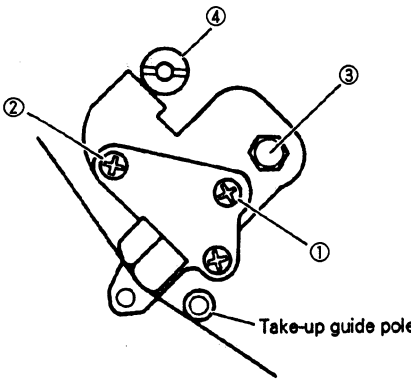
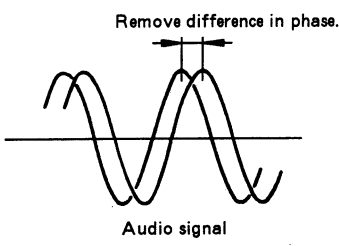
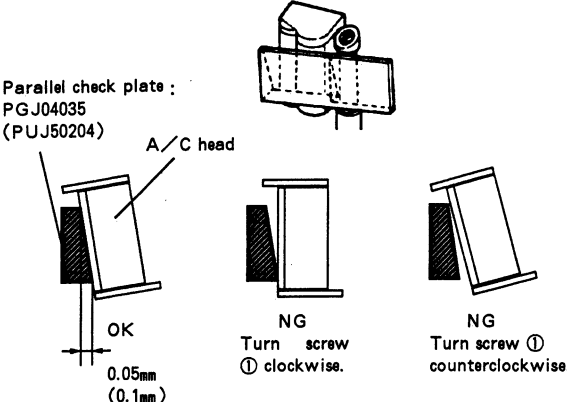
No.	Item	Check point	Adjustment parts	Signal	Mode	Adjustment and Check
5	Reverse (×1 speed) torque					Adjust reverse torque according to the following procedure.
	Required instrument					<ul style="list-style-type: none"> Cassette torque meter : PUJ42881B
						<pre> graph TD START([START]) --> PowerOn[Power on (no cassette tape)] PowerOn --> PressButtons[Within 2 sec after the counter display is on, press the COUNTER RESET, FF and REW buttons] PressButtons --> AdjustMode[Adjustment mode "0 7"] AdjustMode --> SetMeter[Set the cassette torque meter PUJ42881B and enter the mechanism into the Search REV (×1) mode.] SetMeter --> Decision{SUPPLY TORQUE X : 176±10g-cm} Decision -- NG (X < 166g-cm) --> PushIn[PUSH IN/+SHIFT] Decision -- NG (X > 186g-cm) --> PushOut[PUSH OUT/-SHIFT] Decision -- OK --> FINISH([FINISH]) PushIn --> Decision PushOut --> Decision </pre>
6	Take-up torque					Adjust Take-up torque according to the following procedure.
	Required instrument					<ul style="list-style-type: none"> Cassette torque meter : PUJ42881
						<pre> graph TD START([START]) --> PowerOn[Power on (no cassette tape)] PowerOn --> PressButtons[Within 2 sec after the counter display is on, press the COUNTER RESET, FF and REW buttons] PressButtons --> AdjustMode[Adjustment mode "0 A"] AdjustMode --> SetMeter[Set the cassette torque meter (PUJ42881) and enter the mechanism into the PLAY mode.] SetMeter --> Decision{TAKE-UP TORQUE X : 170±20g-cm} Decision -- NG (X < 150g-cm) --> PushIn[PUSH IN/+SHIFT] Decision -- NG (X > 190g-cm) --> PushOut[PUSH OUT/-SHIFT] Decision -- OK --> FINISH([FINISH]) PushIn --> Decision PushOut --> Decision </pre>

2.6 ADJUSTMENT OF INTERCHANGEABILITY

No.	Item	Adjustment & Check
	When the upper drum assembly, drum assembly, or A/C head assembly is replaced, adjustment of the interchangeability must be conducted.	
1	<p>Names and locations of main parts</p>  <p>Fig.2-6-1 Names and locations of main parts</p>	
2	<p>Check of FM waveform</p>  <p>Fig.2-6-2 Connection of oscilloscope</p>  <p>Fig.2-6-3 FM waveform</p>	<p>Note: Before loading the alignment tape, load a general recording tape and check that there is no trouble with tape transport.</p> <ol style="list-style-type: none"> (1) Connect the oscilloscope to TP101(:8F) on the 2 AV PRE/REC board and trigger it externally with the signal of TP102(:7G) on the same board, and observe the waveform on the ⊕ slope. (2) Play back the MHPE alignment tape while maximizing the FM waveform with the TRACKING VR. As the maximum level is regarded as "a", confirm that respective levels meet the specifications as expressed by the equations. (3) When the maximum level "a" is set for 4 scale divisions on the oscilloscope screen, levels "b", "c" and "d" must be equivalent to 3.2 scale divisions. (4) To set the maximum level "a" for 4 scale division, adjust the GAIN control of the oscilloscope as the TRACKING VR is set at the maximum position.

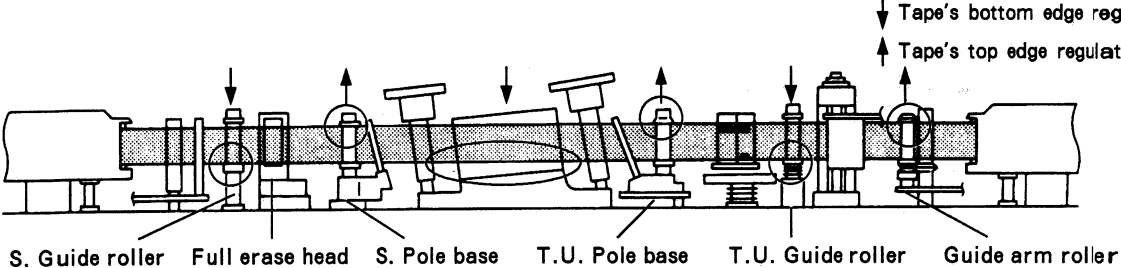
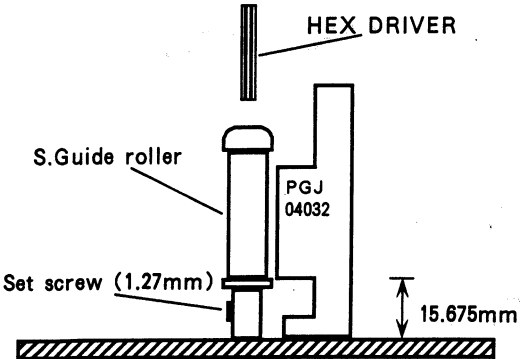
No.	Item	Adjustment & Check
	<div data-bbox="247 293 809 954"> <pre> graph TD START([START]) --> A[Play back MHPE alignment tape.] A --> B{FM waveform meets the specifications.} B -- NO --> C[Proceed to the linearity adjustment (see 2.6.3).] C --> B B -- YES --> D{FM waveform is maximum as TRACKING VR set at center position.} D -- NO --> E[Proceed to X-value adjustment (see 2.6.5).] E --> D D --> FINISH([FINISH]) </pre> </div>	
3	<div data-bbox="216 999 542 1066"> <p>Interchangeability adjustment — Linearity adjustment —</p> </div> <div data-bbox="310 1182 707 1816"> <p>Hex. driver or Hex. key (2mm)</p> <p>Guide roller</p> <p>Loosen L. H. screw, but don't do it too much.</p> </div> <div data-bbox="459 1843 566 1877"> <p>Fig.2-6-4</p> </div>	<div data-bbox="820 999 1119 1025"> <p>(1) Cautions on adjustment</p> </div> <div data-bbox="827 1048 1502 1391"> <ul style="list-style-type: none"> • For linearity adjustment, play back the MHPE alignment tape. • If FM dropout still continues after adjustment of the guide roller, the drum assembly needs replacement (in the case the CH1 and CH2 waveforms show the same tendency). • An FM waveform with worn-out lower drum is shown in the section (2.3.5) of the drum assembly replacement. • Required tools: <ul style="list-style-type: none"> • Hex driver : PGJ04034 (2mm) • Line Head wrench : PGJ04033 </div>

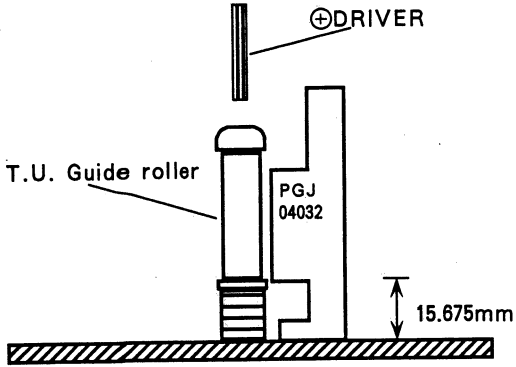
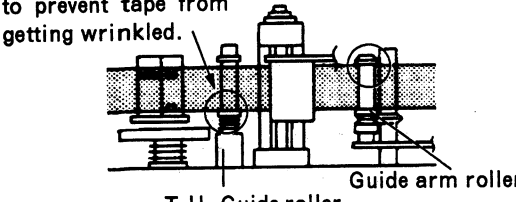
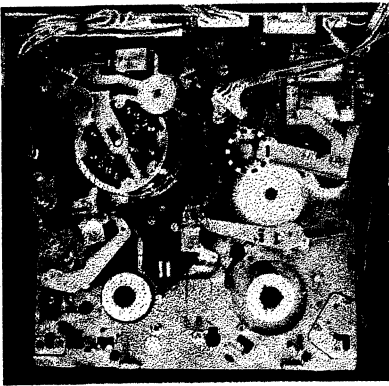
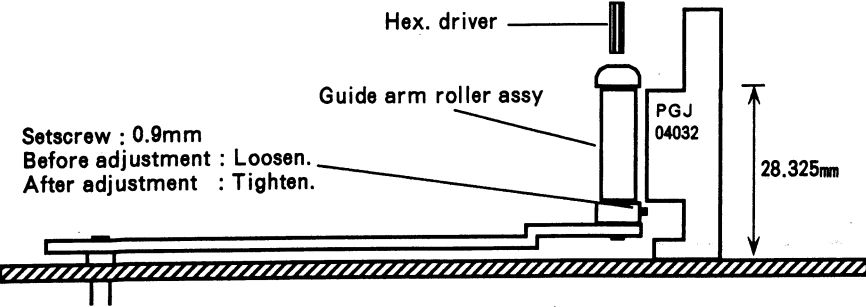
No.	Item	Adjustment & Check
	<div data-bbox="471 293 655 353" style="border: 1px solid black; border-radius: 15px; padding: 2px; text-align: center;">MHPE</div> <div data-bbox="282 427 840 488" style="border: 1px solid black; padding: 2px;">Observe FM waveform.</div> <div data-bbox="282 562 840 645" style="border: 1px solid black; padding: 2px;">Turn the TRACKING VR to observe waveform breaking with ease.</div> <div data-bbox="282 719 840 779" style="border: 1px solid black; padding: 2px;">Turn the guide roller to flatten the waveform.</div> <div data-bbox="282 853 840 936" style="border: 1px solid black; padding: 2px;">Decline the waveform output to 2/3 of the maximum level with the TRACKING VR.</div> <div data-bbox="282 1010 840 1093" style="border: 1px solid black; padding: 2px;">Turn the guide roller counterclockwise to raise the waveform by the both ends.</div> <div data-bbox="282 1167 840 1249" style="border: 1px solid black; padding: 2px;">Gradually lower the guide roller and stop it just before the waveform is flattened in the both ends.</div> <div data-bbox="420 1323 710 1384" style="border: 1px solid black; border-radius: 15px; padding: 2px; text-align: center;">General recording tape.</div> <div data-bbox="282 1458 840 1541" style="border: 1px solid black; padding: 2px;">Record the stairstep signal and play it back while observing the FM waveform.</div> <div data-bbox="282 1615 840 1697" style="border: 1px solid black; padding: 2px;">Change the waveform output with the TRACKING VR while confirming that there is no change in the linearity of the waveform.</div> <div data-bbox="581 1704 620 1738" style="text-align: center;">OK</div> <div data-bbox="247 1749 878 1832" style="border: 1px solid black; padding: 2px;">Tighten the L.H. screw in the lower part of the guide roller.</div> <div data-bbox="365 1906 760 1966" style="border: 1px solid black; border-radius: 15px; padding: 2px; text-align: center;">Proceed to the X-value adjustment.</div>	     

No.	Item	Adjustment & Check									
4	<p>Adjustment of A/C head If the A/C head is incorrectly positioned, it causes dropdown of audio output or deterioration in its S-to-N ratio, or misaligned servo resulting from failure in picking up control signals in the worst case when a recorded tape is playback.</p>  <p>Fig.2-6-5 Adjustment of A/C head height</p>  <p>Fig.2-6-6</p>  <p>Fig.2-6-7</p>  <p>Fig.2-6-8 Parallel check</p>	<ol style="list-style-type: none"> Required jig <ul style="list-style-type: none"> Nut driver : 5.5mm Alignment tapes : MBAE-3, MHPE, MBAE Parallel check plates : PGJ04035(0.05), PUJ50204(0.1) Temporary check of A/C head height <ol style="list-style-type: none"> In the stage of tape transport check preparatory to A/C head adjustment, temporarily adjust the A/C head height to prevent the tape from getting damaged as well as to conduct the adjustment with ease. Tilt (forward bent) adjustment <ol style="list-style-type: none"> Adjust the setscrew ① so that the A/C head closely contacts the parallel check plate surface with a tilt equivalent to 0.05mm on the base line of the plate. If there is a space between them in the upper part, the tilt is small. In that event, tighten the setscrew ① to tilt the A/C head much more. On the other hand, if there is a space in the lower part, loosen the setscrew ① to decrease the A/C head in tilt. Check that the tape is not damaged and wrinkled at the lower flange of the take-up guide pole. If so, fine adjust the height of the take-up guide pole. Head height and azimuth adjustment <ol style="list-style-type: none"> Connect CH1 of the oscilloscope with TP1 on the N. AUDIO board while CH2 with the TP2 on the same board, and set the oscilloscope to the chop mode. Play back the MBAE-3 alignment tape while adjusting the A/C head height by turning the hex. nut ③ so as to minimize both output levels of CH1 and CH2. (Height adjustment) Play back the MHPE alignment tape while adjusting the setscrew ② to match output waveforms of CH1 and CH2 in the phase as well as to maximize output level of both the channels. (Azimuth adjustment) Repeat the steps (2) and (3) alternately for finer adjustment. Azimuth check <ol style="list-style-type: none"> Connect CH1 of the oscilloscope with TP1 on the N. AUDIO board while CH2 with TP2 on the same board, and set the oscilloscope to the chop mode. Play back the MBAE alignment tape while confirming that there is no phase difference (less than 0.1msec) in the output waveforms of CH1 and CH2. If there is a phase difference more than 0.1msec, repeat the height and azimuth adjustment (4) above. A/C head parallel check <ol style="list-style-type: none"> With the parallel check plate (PUJ50204), make sure that the tilt of the A/C head is less than 0.1mm on the base line of the check plate. If not, repeat the above adjustments (3) through (6) until a satisfactory result is obtained. <p>Test points on N. AUDIO board with addresses</p> <table border="1"> <thead> <tr> <th></th><th>BR-S800</th><th>BR-S500</th></tr> </thead> <tbody> <tr> <td>TP1</td><td>6E</td><td>4A</td></tr> <tr> <td>TP2</td><td>11E</td><td>7A</td></tr> </tbody> </table>		BR-S800	BR-S500	TP1	6E	4A	TP2	11E	7A
	BR-S800	BR-S500									
TP1	6E	4A									
TP2	11E	7A									

No.	Item	Adjustment & Check
5	<p>X-value adjustment</p> <p>If the X-value is maladjusted, it results in time lag between picture and normal sound when playing back a tape recorded by a set whose X-value is correctly adjusted.</p> <div data-bbox="263 414 686 795"> </div> <p style="text-align: center;">Fig.2-6-9</p> <div data-bbox="196 940 705 1265"> </div> <p style="text-align: center;">Fig.2-6-10 X-value adjustment</p> <div data-bbox="180 1377 752 1635" style="border: 1px solid black; padding: 5px;"> <p>• Synchronization of oscilloscope</p> <ol style="list-style-type: none"> ① Set the oscilloscope's sweep time to 10msec. ② In the condition being synchronized with D. FF signal, turn the oscilloscope's HOLD OFF knob in the ⊕ direction to stabilize non-recorded portion. ③ Use the oscilloscope probe of the 10:1 ratio. </div>	<ol style="list-style-type: none"> (1) Required jig <ul style="list-style-type: none"> • Ordinary screwdriver (⊖) • Alignment tapes : MBPE-X, MHPE (2) X-value adjustment <ol style="list-style-type: none"> ① Connect CH1 of the oscilloscope with TP101(:8F) on the ①② AV PRE/REC board while connect CH2 with the AUDIO MONITOR terminal on the rear panel. Set the AUDIO MONITOR switch on the front panel to the NORM AUD-1/L position. ② Trigger the oscilloscope externally with signal of TP102(:7G) on the ①② AV PRE/REC board. ③ Play back a self-recorded tape while confirming that the FM waveform is maximum with the TRACKING VR set to the center position. If not, check to see if the tracking is correctly adjusted. <p>Note : If not, fine adjust the tracking preset explained in the previous item, step (3).</p> ④ Set the TRACKING VR to the center position. ⑤ Play back the MBPE-X alignment tape. ⑥ Adjust the taper nut ④ to maximize the FM output as well as to match the non-recorded portions of AUDIO and FM outputs in the phase (±1 field). ⑦ Play back the MHPE alignment tape while confirming that the FM waveform is maximum with the TRACKING VR set to the center position. ⑧ If the result of the above step ⑦ is unsatisfactory, slide the A/C head to a point where the FM waveform is maximum near the point set in the above step ⑥. ⑨ Play back the MHPE alignment tape while confirming that the FM waveform is maximum with the TRACKING VR set to the center position. (3) Tracking preset adjustment <ol style="list-style-type: none"> ① Take the cassette tape out of the set, and then turn off the power switch. ② Turn on the power switch again, and press the EJECT and STOP buttons simultaneously within 2 sec after the counter indicator is on. ③ When "OPEn" appears in the counter display, press the IN/+SHIFT button 8 times, and then "Tr-Adj" will appear in the counter display. ④ Set the TRACKING VR to the center click position. ⑤ Press the SET button to set adjustment data. ⑥ Press the IN/+SHIFT button repeatedly until "▷Pen" appears in the counter display. ⑦ Press the MENU button.

2.7 ADJUSTMENT OF TAPE TRANSPORT SYSTEM

No.	Item	Adjustment & Check
	<p>Generally, the tape transport system has no need of adjustment since it has precisely been adjusted before the set is shipped from factory.</p> <p>However, it needs check and adjustment after long time use and parts replacement of the tape transport system.</p>	
1	<p>Check of tape transport system</p>	<p>(1) Required implements</p> <ul style="list-style-type: none"> • Tin tape : SE-240 <p>(2) Load a thin tape, and conduct the following checks at the beginning and end portions of the tape.</p> <p>(3) Repeat loading and unloading operations while confirming that the tape is neither damaged nor wrinkled at the take-up guide roller, guide pole, guide arm roller.</p> <p>(4) Do the same check in the Play, FWD and REV modes, respectively.</p>  <p style="text-align: center;">Fig.2-7-1 Check of tape transport</p>
2	<p>Supply guide roller height adjustment</p>  <p style="text-align: center;">Fig.2-7-2 Supply guide roller height</p>	<p>(1) Required implements</p> <ul style="list-style-type: none"> • Height gauge : PGJ04032 • Hex. driver : PGJ04034 • Hex. key : 1.27mm • Thin tape : SE-240 <p>(2) Set the height gauge on the main deck, and check the height of the upper surface of the lower flange of the guide roller.</p> <p>(3) If it needs adjustment, loosen the setscrew under the guide roller and then adjust the guide pole with a hex driver.</p> <p>(4) Forwarding a thin tape in the Play mode, fine adjust the height of the guide roller so that the tape smoothly travels on the upper side of the lower flange of the guide roller.</p> <p>(5) Next, transport the tape in the REV mode while confirming the tape getting no damage. If the tape is damaged, decrease the height of the guide pole by turning the setscrew within a turn from the position that is set in the above step (3).</p> <p>(6) Tighten the setscrew.</p> <p>(7) Again check the tape running smoothly.</p>

No.	Item	Adjustment & Check
3	<p>Take-up guide roller height adjustment</p>  <p>Fig.2-7-3 Take-up guide roller height</p> <p>Adjust roller height to prevent tape from getting wrinkled.</p>  <p>Fig.2-7-4 Tape transport check</p>	<ol style="list-style-type: none"> Required implements <ul style="list-style-type: none"> Height gauge : PGJ04032 Thin tape : SE-240 Set the height gauge on the main deck and check the height of the upper surface of the lower flange of the guide roller. If it needs adjustment, adjust the height of the guide roller by turning the setscrew on the top of the guide roller. Transporting a thin tape in the Play, Search FWD and Play modes in this order, check and adjust the height of the guide roller so that the tape is not wrinkled nor damaged at the lower flange of the guide roller. However, do not turn the setscrew more than 3/4 turn from the position that is set in the step (3). Again check the tape running smoothly.
4	<p>Guide arm roller height adjustment</p>  <p>Fig.2-7-5</p>  <p>Fig.2-7-6</p>	<ol style="list-style-type: none"> Required implements <ul style="list-style-type: none"> Height gauge : PGJ04032 Hex. driver : PGJ04034 Hex. key : 0.9mm Thin tape : SE-240 Turn off the power. As shown in the dotted circle, set the height gauge on the main deck's cutout neighboring the capstan motor in the right side. Turn the loading motor counterclockwise by hand while checking the height of the lower surface of the upper flange of the guide arm roller. If adjustment is needed, turn the setscrew on the top of the guide arm roller to adjust its height. Transporting a thin tape in the FWD and REV modes, check that there is no change in the tape transport level at the lower flange of the take-up guide roller even when the mode is changed between the FWD and REV. (See Fig. 2-7-4.) If the tape is damaged or wrinkled, repeat the above steps (2) through (6) until that smooth tape transport is confirmed.

SECTION 3 ELECTRICAL ADJUSTMENT

3. 1 PRECAUTIONS

Before proceeding to any electrical adjustment, it is the first prerequisite to confirm that the objective item is out of order or of breakdown. Moreover, for parts and items that need correct mechanical adjustment prior to electrical adjustment, begin by confirming that they are exactly mechanically adjusted.

Make sure to start electrical adjustment 5 or more minutes after the power is turned on.

Before starting any adjustment, make sure to reset the MENU switch to the initial setting that was set at shipment. (See Section 7.) Then, if there is a direction to set the MENU switch specially for the adjustment item in the head of a page or the beginning of an adjustment item, change the setting of the MENU switch according to the direction.

3.1.1 Required tools and test instruments

- Frequency counter (sensitivity range between 10MHz or more and 100mV or less)
- Video signal generator (TG-7/2, Model 1411, or equivalent)
- Waveform monitor (1485R, or equivalent)
- Digital voltmeter (available for 1 mV_{DC} or under)
- Sweep signal generator (100kHz to 10MHz, Model-430P*, or equivalent)
- Oscilloscope*2 (dual-trace type, available for 50MHz or more)
- Vectorscope (521A, or equivalent)
- TV monitor
- Audio tester

Besides the above-mentioned instruments, the following special instruments are needed.

*1 : VC-G30U/VC-G40U cable (optional) to supply Y/C443 output of the Model 430P to this set.

*2 : Use an oscilloscope probe of 10:1 ratio unless otherwise specified.

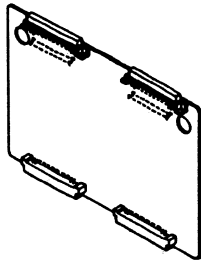
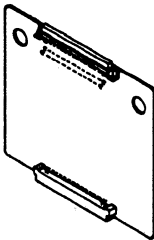
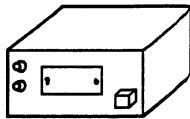
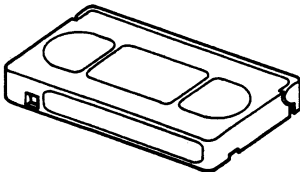

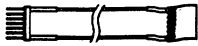
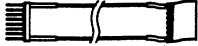
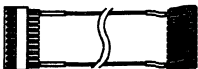
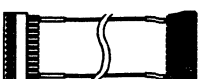
Extension boards		Carrier checker
<p>1. PGJ05043 for VIDEO-1, VIDEO-2, FM AUDIO, NORMAL AUDIO, AV I/O boards</p> 	<p>2. PGJ05006 for SYSCON board</p> 	<p>PGJ05008-2</p> 
Alignment tape	Extension boards	Patch cords
<p>See page 3-2.</p> 	<p>PRK10157A5 for AV PRE/REC board</p> 	<p>PGJ05020 for BURST ADD board</p> <p>7 pin </p> <p>8 pin </p> <p>10 pin </p> <p>11 pin </p> <p>Note: 7pins and 8pins patch cords are not used for BR-S800E/BR-S50E</p>

Fig.3-1-1 Required special implements

3.1.2 Specification of alignment tapes

•MHPE

Video signal	Audio signal	Application	Remark
VHS (SP mode) Stairstep	6kHz	•For check and adjustment of interchangeability. •For adjustment of PB switching point.	MH-2 stairstep signal is substitutable.

•MHVE-2

Video signal	Audio signal	Application	Remark
VHS (SP mode) Color bar	—	•For check and adjustment of video PB circuit.	MH-2 color bars signal is substitutable.

•MBAE(MHAE)

Video signal	Audio signal	Application	Remark
CTL signal only	1kHz(0dB)	•For check and adjustment of audio PB circuit.	MH-1 1 kHz signal is substitutable.

•MH-8

No.	Play-Back time	Video signal	Audio signal	Application
1	2 minutes	Color sweep	400Hz(−20dB)	•For check and adjustment of frequency response of video PB circuit. •For check and adjustment of frequency response of audio PB circuit.
2	2 minutes	Color sweep	100Hz(−20dB)	
3	2 minutes	Color sweep	10kHz(−20dB)	
4	4 minutes	Color sweep	—	

•MH-F8

No.	Play-Back time	Video signal	Audio signal	Application
1	5 minutes	—	Carrier only	For check and adjustment of interchangeability of mechanism.
2	5 minutes	Stairstep	Carrier only	
3	5 minutes	—	1kHz (±50kHz DEV)	For check and adjustment of FM audio PB circuit.

•MHVE-2H

Video signal	Audio signal	Application	Remark
S-VHS (SP mode) Color bar	—	•For check and adjustment of video PB circuit.	MH-2 SP mode color bar signal is substitutable.

•MBVE-3H

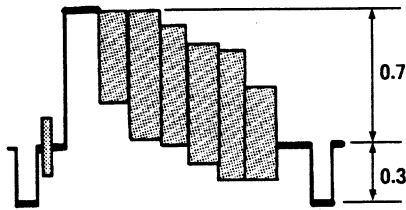
Video signal	Audio signal	Application	Remark
S-VHS (SP mode) Sweep signal	—	•For check and adjustment of video frequency response.	MHVE-3H is renamed.

•MBAFE-2

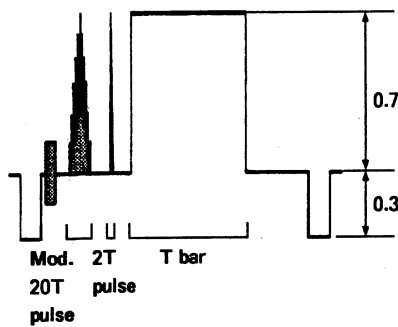
Video signal	Audio signal	Application	Remark
Carrier only (4MHz)	1KHz (±50KHz DEV)	•For check and adjustment of FM audio PB circuit.	—

3.1.3 Signals required for video system adjustment

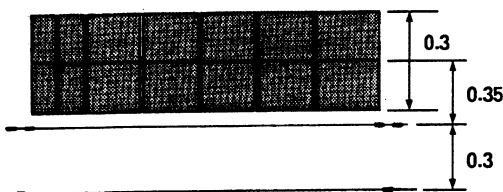
(1) EBU 75% color bar



(2) Pulse & bar signal

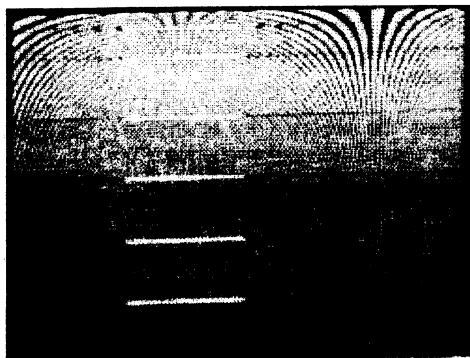


(3) Video sweep signal (100k to 5MHz)



To input this signal through the LINE IN terminal, make sure to use a sweep signal well-balanced in H. correlation in order to avoid malfunction of the comb filters.

For a reference, a sweep signal having a good H. correlation shows such a clear pattern as neighboring black and white lines are the same in the width and interval on the monitor screen as shown in the figure below.



3.1.4 Explanation of main columns in check and adjustment table.

(1) "Check Point" column

Check point
TP3 : 3E (FM AUDIO)
↓
Digital voltmeter

The Check Point column indicates measuring instruments to be used and test points to connect measuring instruments (use and connection of oscilloscope are omitted). Symbol (consisting of numeral and alphabet) following the symbol of a test point and colon indicates a section of the specified board where the test point is located.

In case of the above sample, TP3 is located in the section 3E of the FM AUDIO board, and TP3 should be connected with a digital voltmeter.

When a terminal on the rear board is indicated in the Check Point column, connect a measuring instrument directly to the terminal.

(2) "Signal" column

Signal
1kHz/ -6dBs
↓
N. AUDIO IN

The Signal column indicates signals to input and terminals to input the signal. (When no input terminal is indicated, input signal through the LINE IN terminal.)

Note:
When the Y/C443 terminal is specified as an input terminal, set the VIDEO INPUT switch on the front panel to the Y/C443 position.

In case of the above sample, input a 1kHz, -6dBs signal through the NORMAL AUDIO INPUT terminal.

When adjustment requires to play back an alignment tape to supply input signal, the part number of a required alignment tape is indicated in this column.

(3) "Mode" column

Mode
REC
S-VHS
↓
PB

The Mode column indicates operation modes for adjustment.

The above sample indicates to play back a tape that is recorded in the S-VHS mode for adjustment.

When Adjust mode "x x" is appearing in this "Mode" column, enter the set into the "x x" mode as specified, since the BR-S800E/BR-S500E is provided with some automatic adjustment modes for electrical adjustment.

For detail of the automatic adjustment mode, refer to the section 7.5.

3. 2 POWER SUPPLY CIRCUIT

No.	Item	Check point	Adjustment	Signal	Mode	Check and Adjustment
1	Regulator voltage	TP2 (REGULATOR)	R74 (REGULATOR)	—	REC	(1) Adjust R74 so that voltage at TP2 is $5.10 \pm 0.05V_{DC}$. Note: For adjusting the BR-S500E in this item, play back the MHVE-2H alignment tape since it has no INPUT terminal.
		TP1 (REGULATOR)	R41 (REGULATOR)	—	REC	(1) Adjust R41 so that voltage at TP1 is $12.10 \pm 0.05V_{DC}$. Note: For adjusting the BR-S500E in this item, play back the MHVE-2H alignment tape since it has no INPUT terminal.

3. 3 SERVO CIRCUIT

• The test point of D-F.F. output is TP102(:7G) on the 1/2 AV PRE/REC board.

No.	Item	Check point	Adjustment	Signal	Mode	Check and Adjustment
1	Duty factors of FG pulses & Stop servo (automatic adjustment)	—	—	—	Adjust mode "04"	(1) After turning on the power (within 2 sec), press the FF, REW and COUNTER RESET buttons simultaneously to enter the set into adjustment mode. (2) Press the MENU (+) or SET (—) button to set for the adjustment mode No. "04". (3) Press the SHIFT(+) or SHIFT(—) button and the reel motor, capstan motor and drum motor take turns at rotating to perform automatic adjustment. (4) With completion of the automatic adjustment, every motor stops and "End" appears in the counter display.
2	PB Switching point	TRACKING METER	TRACKING VR	MHPE	Adjust mode "0F"	(1) After turning on the power (within 2 sec), press the FF, REW and COUNTER RESET buttons simultaneously to enter the set into adjustment mode. (2) Press the MENU (+) or SET (—) button to set for the adjustment mode No. "0F". (3) Play back the MHPE alignment tape while adjusting the TRACKING VR so that the TRACKING METER reads the signal level to the maximum. (4) Press the SHIFT(+) or SHIFT(—) button and automatic adjustment starts. (5) With completion of the automatic adjustment, every motor stops and "End" appears in the counter display.

3. 4 AUDIO CIRCUIT

3.4.1 Manual adjustment

- For adjustment of the audio circuit, select "OFF(0)" for setting the "LIMITER" of the MENU switch No. 202.

No.	Item	Check point	Adjustment	Signal	Mode	Check and Adjustment
1	Hi-Fi audio carrier frequency	TP1 : 7A (FM AUDIO) ↓ Frequency counter <div>L-ch carrier frequency : 1.400±0.002MHz</div>	R57 : 7A (FM AUDIO)	No signal input	REC VHS	(1) Set the MENU switch No. 200 to "ON" position. (2) Adjust R57 to obtain 1.400 MHz as the frequency of TP1 signal.
		TP2 : 7A (FM AUDIO) ↓ Frequency counter <div>R-ch carrier frequency : 1.800±0.002MHz</div>	R58 : 8A (FM AUDIO)	No signal input	REC VHS	(3) Adjust R58 to obtain 1.800 MHz as the frequency of TP2 signal.
2 Conduct automatic adjustment of the AUDIO circuit. (See the following page for detail.) To conduct automatic adjustment of the audio circuit, proceed as follows. <ul style="list-style-type: none">After turning on the power (within 2 sec), press the FF, REW and COUNTER RESET buttons at the same time."00 00" appears in the counter display.Insert a required tape.Press the MENU (+) or SET (−) button to select an automatic adjustment mode by number.Press the COUNTER RESET button and automatic adjustment starts with indication of "P" in the counter display.As the automatic adjustment finishes, the tape is automatically ejected and "End" appears in the counter display. Note : When "Error" is displayed, no adjustment is performed and the previous adjustment data is recovered.						
3	Hi-Fi AUDIO LEVEL METER	HiFi AUDIO OUT (600Ω terminator) ↓ Audio level meter	R71 : 3G (Lch) R72 : 2G (Rch) (AV I/O)	1kHz/ −6dBs ↓ HiFi AUDIO IN	E-E	(1) With the HiFi REC LEVEL VR adjust the output from the HiFi AUDIO output terminal to be −6.0 (±0.3)dBs. (2) Set the AUDIO MONITOR switch to the HiFi position. (3) Set the METER SELECT switch to the AUD-2/R position. (4) Adjust R71 (for L-ch) and R72 (for R-ch) so that the AUDIO LEVEL METER reads 0.0dB as viewed from the right front. Note: For adjusting the BR-S500E in this item, play back the alignment tape MBAFE-2 or the 1kHz segment of MH-F8 tape.

3.4.2 Automatic adjustment

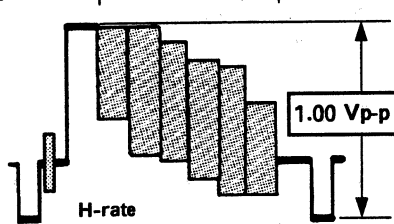
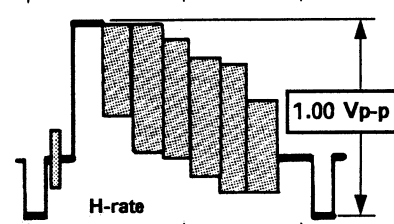
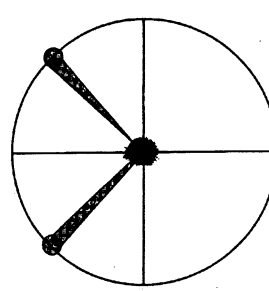
• For adjustment of the audio circuit, select "OFF(0)" for setting the "LIMITER" of the MENU switch No. 202.

No.	Item	Check point	Adjustment	Tape "A"	Mode "B"	Check and Adjustment
1	Normal Audio PB level	—	—	MBAE	Adjust mode "1 8"	(1) After turning on the power (within 2 sec), press the FF, REW and COUNTER RESET buttons simultaneously to enter the set into adjustment mode.
2	Normal Audio PB frequency response	—	—	MH-8	Adjust mode "1 9"	(2) Load the set with the alignment tape and press the MENU(+) or SET(−) button to select the adjustment mode "B".
3	Hi-Fi Audio PB level	—	—	MH-F8 (1kHz) or MBAFE-2	Adjust mode "1 A"	(3) Press the COUNTER RESET button and automatic adjustment starts with indication of "P" in the counter display.
4*	BR-S800E Normal Audio REC/PB level	—	—	S-VHS DC	Adjust mode "1 B" <div>S-VHS</div>	(4) With completion of the automatic adjustment, the tape is automatically ejected and "End" appears in the counter display.
				VHS DC	Adjust mode "1 B" <div>VHS</div>	(4) With completion of the automatic adjustment, the tape is automatically ejected and "End" appears in the counter display.
5*	BR-S800E Normal Audio frequency response (REC/PB)	—	—	S-VHS DC	Adjust mode "1 C" <div>S-VHS</div>	(1) After turning on the power (within 2 sec), press the FF, REW and COUNTER RESET buttons simultaneously to enter the set into adjustment mode.
				VHS DC	Adjust mode "1 C" <div>VHS</div>	(2) Load the set with an S-VHS cassette tape and press the MENU(+) or SET(−) button to select the adjustment mode No. "1C".
6*	BR-S800E HiFi Normal Audio REC/PB level & EE level	—	—	S-VHS DC	Adjust mode "1 D" <div>S-VHS</div>	(3) Press the COUNTER RESET button.
				VHS DC	Adjust mode "1 D" <div>VHS</div>	(4) With completion of the automatic adjustment, the tape is automatically ejected and "End" appears in the counter display.
*: Automatic adjustments of the above items No. 4, 5, 6 are provided for the recording system of the audio circuit. Although the above description is given to individual adjustment procedures of the those items, they can undergo automatic adjustment together with when the adjustment mode No. "1E" is selected. (However, adjustments for the VHS and S-VHS modes must be conducted individually.)						

3. 5 VIDEO CIRCUIT

• The test point of D-F.F. output is TP102(:7G) on the **[1][2]** AV PRE/REC board.

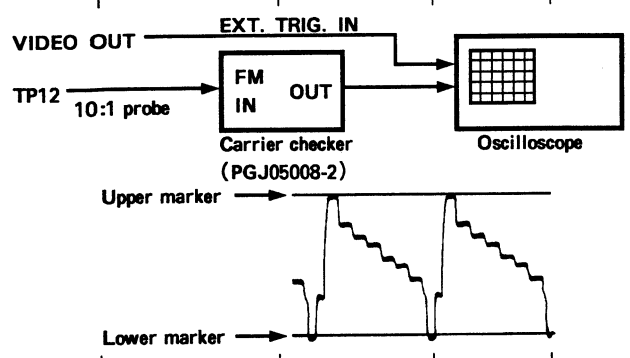
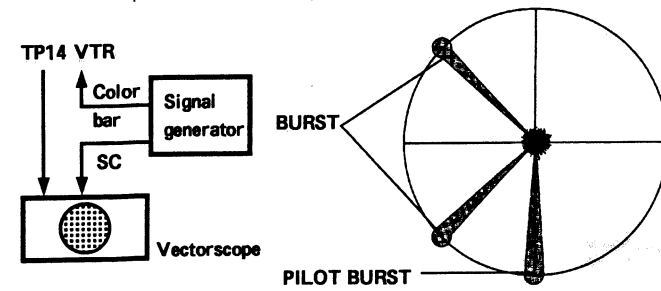
• For the following adjustments of the video circuit, set the menu switch No.101(EDIT SELECT) to "DUB or EDIT".

No.	Item	Check point	Adjustment	Signal	Mode	Check and Adjustment
1	VCXO	TP9 : 14D (VIDEO-1) ↓ Frequency counter	C137 : 14D (VIDEO-1) <div>TP4 : 4.433619MHz±10Hz</div>	MHVE-2H	PB	(1) Adjust C137 to obtain 4.433619MHz as the frequency of TP9's signal.
2	BR-S800E AGC gain level	VIDEO OUT (75Ω terminator) 	R1 : 8G (VIDEO-1)	Color bar ↓ Y/C443 IN	E-E S-VHS	(1) Set the VIDEO INPUT switch to the Y/C443 position. (2) Adjust R1 so that output level of the VIDEO OUT terminals is 1.0Vp-p. (3) Return the VIDEO INPUT switch to the "LINE" position.
3	BR-S800E COMB filter level	VIDEO OUT (75Ω terminator)  ↓ Vectorscope  <div>Utilizing the radius of the vectorscope screen's circumference as a ruler, equalize burst level of output of the VIDEO OUT terminal with the input signal level with R2.</div>	R3 : 6G (VIDEO-1) R2 : 6G (VIDEO-1)	Color bar	E-E S-VHS	(1) Adjust R3 so that output level of the VIDEO OUT terminal is 1.0Vp-p. (2) Input the signal directly to the vectorscope. While adjusting the GAIN control so that the burst level crosses the scope's circumference. (3) Next, connect the vectorscope to the VIDEO OUT terminal and input color bars signal through the VIDEO IN terminal. (4) Adjust R2 to equalize level of the luminous point of the burst signal with the level of the reference color bar signal.
4	BR-S800E 321fH	TP17 : 15D ↓ Digital volt-meter	C150 : 15C (VIDEO-1)	MHVE-2H	STOP ↓ PB	(1) Measure DC voltage at TP17 and take note of DC level as "A". (STOP mode) (2) Play back the alignment tape MHVE-2H. (3) Adjust C150 to equalize DC level with the level of "A".
	BR-S500E 321fH	TP17 : 15D ↓ Digital volt-meter	C150 : 15C (VIDEO-1) <div>TP17 : 3.20V_{oc}</div>	MHVE-2H	PB	(1) Adjust C150 so that V _{oc} at TP17 is 3.20V _{oc} .

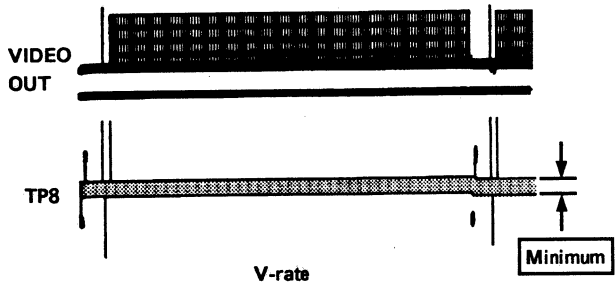
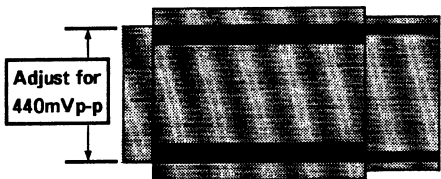
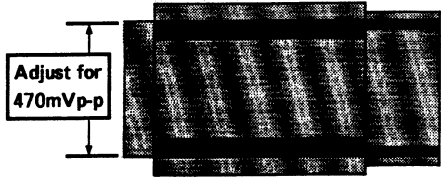
- The test point of D-F.F. output is TP102(:7G) on the **1/2** AV PRE/REC board.
- For the following adjustments of the video circuit, set the menu switch No.101(EDIT SELECT) to "DUB or EDIT".

No.	Item	Check point	Adjustment	Signal	Mode	Check and Adjustment
5	BR-S800E VHS mode White & Dark clip	TP9 : 10E (VIDEO-2)	R4 : 8F (VIDEO-2)	Pulse & bar	E-E VHS	<p>(1) Set the MENU switch No.100 to "VHS".</p> <p>(2) Adjust the oscilloscope's GAIN control to set the level difference between the white clip and the dark clip for 4.8scale divisions of the oscilloscope screen.</p> <p>(3) Adjust R4 so that the difference between the sync tip and the 100% white level is for 2.0scale divisions of the oscilloscope.</p> <p>Note : After the step (3), make sure that the level difference between the white clip and the dark clip is still for 4.8scale divisions.</p> <p>(4) Return the setting of the MENU switch No.100 to "AUTO".</p>
6	BR-S800E Sub emphasis input level	TP2 : 15G (VIDEO-2)	R1 : 14F (VIDEO-2)	Color bar	E-E S-VHS	<p>(1) Adjust R1 to obtain 0.4Vp-p as the signal level at TP2.</p>
7	BR-S800E S-VHS mode White & Dark clip	TP9 : 10E (VIDEO-2)	R2 : 15E (VIDEO-2)	Pulse & bar	E-E S-VHS	<p>(1) Adjust the oscilloscope's GAIN control to set the level difference between the white clip and the dark clip for 5.6scale divisions of the oscilloscope screen.</p> <p>(2) Adjust R2 so that the difference between the sync tip and the 100% white level is for 2.0scale divisions of the oscilloscope.</p> <p>Note : After the step (2), make sure that the level difference between the white clip and the dark clip is still for 5.6scale divisions.</p>
			R9 : 10D (VIDEO-2)	Pulse & bar	E-E S-VHS	<p>(3) Adjust the oscilloscope's GAIN control to set the difference between the sync tip and the 100% white level is for 2.0scale divisions.</p> <p>(4) At the same time, adjust R9 to set the white clip to the graduation of 2.2 and the dark clip to the graduation of 1.4 of the oscilloscope scale.</p>

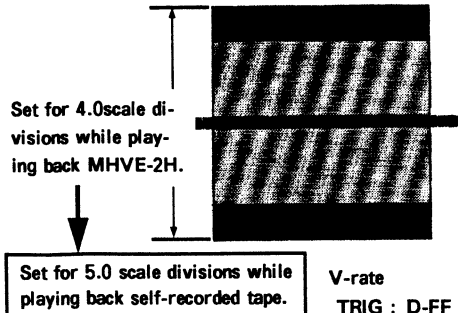
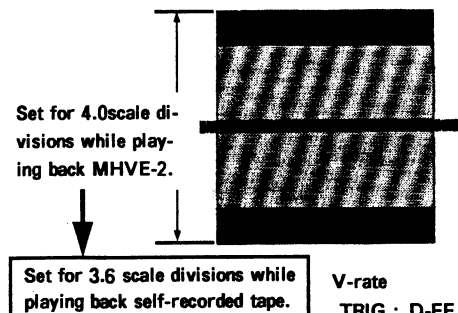

- The test point of D-F.F. output is TP102(:7G) on the **1/2** AV PRE/REC board.
- For the following adjustments of the video circuit, set the menu switch No.101(EDIT SELECT) to "DUB or EDIT".

No.	Item	Check point	Adjustment	Signal	Mode	Check and Adjustment														
8	BR-S800E Carrier & Deviation	TP12 : 6F (VIDEO-2)	R7 : 11E (Sync-tip) R5 : 11E (100%White) (VIDEO-2)	Color bar	E-E S-VHS	<p>Note : This adjustment needs the carrier checker (PGJ05008-2).</p> <p>(1) Make sure that the MENU switch No.100 is set to "AUTO" position.</p> <p>(2) Connect the carrier checker and the oscilloscope as illustrated in the left.</p> <p>(3) Set the carrier checker for "S-VHS" mode and the DEVI/BAL switch to "DEVI" position.</p> <p>(4) Adjust R7 to accord the sync tip with the lower marker while adjusting R5 to accord the 100% white level with the upper marker.</p> <p>Note : The above adjustment requires that both the sync tip and the 100% white level accord with the marker respectively.</p>														
					R8 : 12E (Sync-tip) R6 : 10E (100%White) (VIDEO-2)	Color bar	E-E VHS	<p>(5) Set the MENU switch No.100 to "VHS".</p> <p>(6) Set the carrier checker for "VHS" mode</p> <p>(7) In the same manner as for the S-VHS mode, accord the sync tip with the lower marker with R8 and the 100% white level with the upper marker with R6 respectively.</p> <p>(8) Return the MENU switch No.100 to "AUTO".</p>												
<table border="1"><thead><tr><th rowspan="2">Mode</th><th colspan="2">CARRIER</th><th rowspan="2">DEVIATION</th></tr><tr><th>Sync-tip</th><th>100%White</th></tr></thead><tbody><tr><td>S-VHS</td><td>5.4MHz</td><td>7.0MHz</td><td>1.6MHz</td></tr><tr><td>VHS</td><td>3.8MHz</td><td>4.8MHz</td><td>1.0MHz</td></tr></tbody></table>							Mode	CARRIER		DEVIATION	Sync-tip	100%White	S-VHS	5.4MHz	7.0MHz	1.6MHz	VHS	3.8MHz	4.8MHz	1.0MHz
Mode	CARRIER		DEVIATION																	
	Sync-tip	100%White																		
S-VHS	5.4MHz	7.0MHz	1.6MHz																	
VHS	3.8MHz	4.8MHz	1.0MHz																	
9	BR-S800E Pilot burst level & phase	TP14 : 16B (VIDEO-1) ↓ Vectorscope	C116 : 14C (Phase) (VIDEO-1)	Color bar	E-E S-VHS	<p>(1) Shortcircuits between TP12 and TPGND</p> <p>(2) Supply the R/P COLOR board's TP14 output to a vectorscope while supplying S.C. output of a signal generator to its EXT. REF terminal.</p> <p>(3) Adjust the phase of the burst signal by the PHASE VR so that the signal is normally positioned in the vectorscope screen.</p> <p>(4) Adjust the level of the burst signal by the LEVEL VR so that the burst signal level accords with the circumference of the vectorscope screen.</p> <p>(5) Adjust C116 so that the phase of the pilot burst signal meets the U axis at an angle of 270° (in a downward direction).</p>														
						TP14 : 16B (VIDEO-1)	R4 : 15D (level) (VIDEO-1)	Color bar	E-E S-VHS	<p>(6) Set the burst signal level for 5.0 scale divisions on the oscilloscope by adjusting its GAIN control.</p> <p>(7) Adjust R4 so that the pilot burst signal level is for 5.5 scale divisions on the scope. (110%)</p>										

- The test point of D-F.F. output is TP102(:7G) on the **1/2** AV PRE/REC board.
- For the following adjustments of the video circuit, set the menu switch No.101(EDIT SELECT) to "DUB or EDIT".

No.	Item	Check point	Adjustment	Signal	Mode	Check and Adjustment
10	YNR NC balance (DOC Y level)	TP8 : 10F (VIDEO-2)	R3 : 15D (VIDEO-2)	MHVE-2H	PB	<p>Note : If this item is extremely maladjusted, it may cause black or white noise in video dropout portions.</p> <p>(1) Adjust R8 to minimize the level of TP8's waveform by the portion shown in the figure.</p>
 <p>VIDEO OUT</p> <p>TP8</p> <p>V-rate</p> <p>Minimum</p>						
11	BR-S800E REC FM level	TP12 : 6F (VIDEO-2)	R14 : 6B (VIDEO-2)	Color bar	REC VHS	<p>(1) Adjust R14 to obtain 440mVp-p as the level of TP12's FM waveform.</p>
 <p>Adjust for 440mVp-p</p> <p>TRIG : D-FF ⊖ SLOPE(CH1) ⊕ SLOPE(CH2)</p>						
 <p>Adjust for 470mVp-p</p> <p>TRIG : D-FF ⊖ SLOPE(CH1) ⊕ SLOPE(CH2)</p>						
		R12 : 7C (VIDEO-2)	Color bar	REC S-VHS		<p>(1) Adjust R12 to obtain 470mVp-p as the level of TP12's FM waveform.</p>

- The test point of D-F.F. output is TP102(:7G) on the **1/2** AV PRE/REC board.
- For the following adjustments of the video circuit, set the menu switch No.101(EDIT SELECT) to "DUB or EDIT".

No.	Item	Check point	Adjustment	Signal	Mode	Check and Adjustment
12	BR-S800E REC color level	TP18 : 4C (VIDEO-2)	—	MHVE-2H	PB	(1) Play back the MHVE-2H alignment tape. Note : Set the TRACKING VR to the optimum position.
						(2) Adjust the GAIN control of the oscilloscope to set color level at TP5 for 4.0scale divisions of the oscilloscope. Note : When there is a level difference between CH1 and CH2, this adjustment should be based on the channel whose playback level of a self-recorded signal is higher than the other.
		R13 : 13C (VIDEO-2)	Color bar	REC S-VHS ↓ PB		(3) Record color bars signal and play it back. Set the TRACKING VR to the center position.
						(4) Adjust R13 so that output level at TP18 becomes for 5.0scale divisions on the oscilloscope (+2.0dB to the alignment tape). Note : R13 should be adjusted in recording. Counterclockwise turning of R13 increases the level.
		—	MHVE-2	PB		(5) Play back the MHVE-2 alignment tape. Note : Set the TRACKING VR to the optimum position.
						(6) Adjust the GAIN control of the oscilloscope to set color level at TP18 for 4.0scale divisions of the oscilloscope. Note : When there is a level difference between CH1 and CH2, this adjustment should be based on the channel whose playback level of a self-recorded signal is higher than the other.
		R15 : 14C (VIDEO-2)	Color bar	REC VHS ↓ PB		(7) Record color bars signal and play it back. Set the TRACKING VR to the center position.
						(8) Adjust R15 so that output level at TP18 becomes for 3.6scale divisions on the oscilloscope (−1.0dB to the alignment tape). Note : R15 should be adjusted in recording. Counterclockwise turning of R15 increases the level.
13	Tracking meter	TRACKING METER	R20 : 4F (VIDEO-2)	Color bar	REC S-VHS ↓ PB	(1) Set the METER SELECT switch to "TRACKING", and make sure that the TRACKING VR is set to the center click position.
						(2) Record a color bars signal and play it back.
						(3) Adjust R20 so that the pointer of the TRACKING METER indicates 0 as viewed from the right front. Note : For adjusting the BR-S500E in this item, record a color bars signal by the BR-S800E and play it back by the BR-S500E since the latter has equipped with no INPUT terminal. Moreover, make sure to set the TRACKING VR to an optimum position.

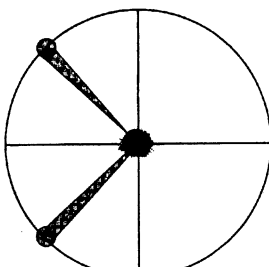

- The test point of D-F.F. output is TP102(:7G) on the **1/2** AV PRE/REC board.
- For the following adjustments of the video circuit, set the menu switch No.101(EDIT SELECT) to "DUB or EDIT".

No.	Item	Check point	Adjustment	Signal	Mode	Check and Adjustment
14	PB Y level	Y/C 443 OUT or V. OUT (75Ω terminator)	R11 : 11G (VIDEO-2)	Color bar	REC VHS ↓ PB	(1) Observing output of the Y/C443 Y OUT terminal, adjust R11 so that the difference between the 100% white level and the pedestal level is 0.7Vp-p. Note : For adjusting the BR-S500E in this item, play back the MHVE-2 alignment tape since it has no INPUT terminal.
			R10 : 10G R21 : 9G (VIDEO-2)	Color bar	REC S-VHS ↓ PB	(2) Observing output of the Y/C443 Y OUT terminal, adjust R10 so that the difference between the 100% white level and the pedestal level is 0.7Vp-p. (3) Adjust R21 so that the sync level becomes 0.3Vp-p. Note : For adjusting the BR-S500E in this item, play back the MHVE-2H alignment tape since it has no INPUT terminal.
15	S-VHSmode RF equalizer	VIDEO OUT (75Ω terminator)	R18 : 5G (CH1) R19 : 4G (CH2) (VIDEO-2)	MBVE-3H	PB S-VHS	(1) Make sure that the MENU switch No.101 is set to "DUB or EDIT". (2) Play back the MBVE-3H alignment tape and adjust the TRACKING VR to the optimum position. (3) Observing the 100kHz signal level on the oscilloscope, adjust the oscilloscope's GAIN control to set it for 5.0scale divisions. (4) In the above-mentioned condition, adjust R18 (CH1) and R19 (CH2) so that the 3MHz signal level becomes for 4.5scale divisions (−1.0 dB) respectively.
16	BR-S800E REC frequency response	VIDEO OUT (75Ω terminator)	C54 : 2G (CH1) C53 : 2G (CH2) (VIDEO-2)	Sweep (nonburst) ↓ Y/C 443 IN	REC S-VHS ↓ PB	(1) Record a sweep signal and play it back. (2) Set the 100kHz signal level for 5.0scale divisions on the oscilloscope screen, and adjust C54 (CH1) and C53 (CH2) so that the 3.0MHz signal level becomes for 4.5scale divisions (−1.0 dB) respectively. Note : R13 should be adjusted in recording.

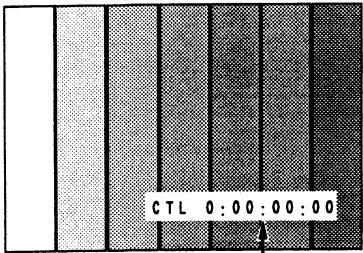
- The test point of D-F.F. output is TP102(:7G) on the **1/2** AV PRE/REC board.
- For the following adjustments of the video circuit, set the menu switch No.101(EDIT SELECT) to "DUB or EDIT".

No.	Item	Check point	Adjustment	Signal	Mode	Check and Adjustment
17	VHS mode RF equalizer	VIDEO OUT (75Ω terminator)	R16 : 4G (CH1) R17 : 3G (CH2) (VIDEO-2)	Sweep (nonburst) ↓ Y/C 443 IN	REC VHS ↓ PB	(1) Make sure that the MENU switch No.101 is set to "DUB or EDIT". (2) Record a sweep signal and play it back. (3) Adjust the GAIN control of the oscilloscope to set the 100kHz signal level for 5.0scale divisions on the oscilloscope screen. (4) In the above condition, adjust R16 (CH1) and R17 (CH2) so that the 2MHz signal level is for 4.0scale divisions (−2.0dB) respectively. Note : For adjusting the BR-S500E in this item, play back the MH-8 alignment tape since it has no INPUT terminal.
18	AFC	TP501 (BURST ADD) ↓ Frequency counter	R503 (BURST ADD)	—	E-E	(1) Adjust R503 to obtain $7.812 \pm 0.100\text{kHz}$ as the frequency of TP501's signal. <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;">TP501 : 7.812kHz±100Hz</div>
19	ΔY	TP23 : 12G (VIDEO-1) 	R5 : 7B (VIDEO-1)	Color bar	REC S-VHS ↓ PB	(1) Minimize the level of TP23 signal with R5. Note : When the BR-S500 needs this adjustment, play back the alignment tape MHVE-2H since it is equipped with no INPUT terminal.
20	CNR	TP20 : 11G (VIDEO-1) 	R6 : 10G R7 : 10G (VIDEO-1)	Color bar	REC S-VHS ↓ PB	(1) Make sure that the MENU switch No.101 is set to "OFF(PB)". (2) Adjust R6 and R7 to minimize signal level (leakage of color component) at TP20. (3) After the adjustment return MENU switch No.101 is set to "DUB or EDIT". Note : When the BR-S500 needs this adjustment, play back the alignment tape MHVE-2H since it is equipped with no INPUT terminal.
21	Carrier balance	VIDEO OUT (75Ω terminator) ↓ Vectorscope 	R11 : 13G R12 : 14G (VIDEO-1)	MHVE-2H	REC S-VHS ↓ PB	(1) Connect the vectorscope to the VIDEO OUT terminal. (2) Adjust R11 and R12 alternately to collect luminous spots appearing in the center of the waveform in the center of the vectorscope screen. Note : Without signal input to the vectorscope, make sure that every luminous spot is located in the center of the vectorscope screen. If there is aluminous point coming off the center without input signal, adjust the VR of the vectorscope to position it in the center of the screen beforehand.

- The test point of D-F.F. output is TP102(:7G) on the **1/2** AV PRE/REC board.
- For the following adjustments of the video circuit, set the menu switch No.101(EDIT SELECT) to "DUB or EDIT".

No.	Item	Check point	Adjustment	Signal	Mode	Check and Adjustment
22	PB Y/C delay	Y/C 443 OUT or V. OUT (75Ω terminator)	R8 : 12G (VIDEO-1)	Pulse & bar	REC S-VHS ↓ PB	<ol style="list-style-type: none"> (1) Mix output signals of the Y/C443 Y OUT and the Y/C443 C OUT terminals in the oscilloscope which is triggered by the output signal of the Y OUT terminal. (2) Record pulse & bar signal and play it back while adjusting R201 to symmetrize the modulated 20T pulse in the bottom. <p>Note : For adjusting the BR-S500E in this item, record a pulse & bar signal by the BR-S800E and play it back by the BR-S500E since the latter has no INPUT terminal.</p>
23	Color (burst) level & phase	VIDEO OUT (75Ω terminator) ↓ Vectorscope	R13 : 12G (burst) (VIDEO-1)	Color bar	REC S-VHS ↓ PB	<ol style="list-style-type: none"> (1) Input the color bar signal directly to the vectorscope. While adjusting the GAIN control so that the burst level crosses the scope's circumference. (2) Next, connect the vectorscope to the VIDEO OUT terminal and input color bars signal through the VIDEO IN terminal. (3) Record a color bars signal and play it back. (4) Adjust R13 to equalize level of the luminous point of the burst signal with the level of the reference color bar signal. <p>Note : For adjusting the BR-S500E in this item, play back the MHVE-2H alignment tape since it has equipped with no INPUT terminal.</p>
		<p>Utilizing the radius of the vectorscope screen's circumference as a ruler, adjust R13 to equalize the playback burst level of the self-recorded signal with the burst level of the directly input color bars signal.</p> 	R10 : 13G (level) R9 : 15G (phase) (VIDEO-1)	Color bar	REC S-VHS ↓ PB	<ol style="list-style-type: none"> (5) Adjust the vectorscope's GAIN control to return the luminescent spot of the burst signal to the original position. (6) Alternately adjust R10 (LEVEL) and R9 (PHASE) to position the luminescent spot of the magenta in the  mark on the vectorscope screen. <p>Note : For adjusting the BR-S500E in this item, play back the MHVE-2H alignment tape since it has equipped with no INPUT terminal.</p>
24	ADD burst	VIDEO OUT (75Ω terminator) ↓ Vectorscope	R502 (level) R501 (phase) (BURST ADD)	Color bar	REC S-VHS ↓ PB	<ol style="list-style-type: none"> (1) Record the color bar signal and play it back (2) Adjust the GAIN VR and PHASE VR of the vectorscope to position the luminous spots of the burst signal on the circumference of the vectorscope screen. (3) Adjust the phase and the level of the ADD burst signal with R502 and R501 so that they the same as those of the burst signal. (4) If there is a level difference in the ADD burst signal, the adjustment should be performed based on the channel having the higher level.

- The test point of D-F.F. output is TP102(:7G) on the **1/2** AV PRE/REC board.
- For the following adjustments of the video circuit, set the menu switch No.101 (EDIT SELECT) to "DUB or EDIT".

No.	Item	Check point	Adjustment	Signal	Mode	Check and Adjustment
25	Slow tracking	VIDEO OUT (75Ω terminator) ↓ TV monitor	TRACKING VR	Color bar	REC S-VHS ↓ PB ↓ SEARCH (×1/30)	(1) Turn off the power switch. (2) Depress the FF, REW and COUNTER RESET button at the same time while turning on the power switch again. (3) Press the MENU switch to get "03 00" appearing in the counter display. (4) Record a color bars signal, and play it back in the step slow mode at the speed of X1/30 (+0.03). (5) Press the +SHIFT button and adjust the TRACKING VR to eliminate noise from the monitor screen. (6) Press the AUTO MODE button and confirm that "03 End" is appearing in the counter display. (7) Turn off the power switch. <i>Note : For adjusting the BR-S500E in this item, play back the MHPE alignment tape since it has no INPUT terminal.</i>
26	V lock	VIDEO OUT (75Ω terminator) ↓ TV monitor	TRACKING VR	Color bar	REC S-VHS ↓ PB ↓ STILL	(1) Set the MENU switch No.337 to "STEP". (2) Record a color bar signal and play it back in the Still mode. (3) Observing the still picture on the monitor screen, adjust the TRACKING VR to minimize fluctuation of the picture. (4) Enter the set into the Stop mode. <i>Note : For adjusting the BR-S500E in this item, play back the MHVE-2H alignment tape since it has no INPUT terminal.</i>
27	Onscreen	MONI OUT ↓ TV monitor	C220 (AV I/O)	Color bar	E-E	(1) Set the COUNTER switch to "CTL" position. (2) Connect the TV monitor to the MONITOR OUT terminal. (3) Adjust C220 so that this colon (:) is positioned in the midpoint between the red and magenta bars. <i>Note : For adjusting the BR-S500E in this item, play back the MHVE-2H alignment tape since it has no INPUT terminal.</i>
		 <div data-bbox="581 1585 871 1711">Adjust so that this colon (:) is positioned in the midpoint between the red and magenta bars.</div>				
		TP205 (AV I/O) ↓ Frequency counter	C226 (AV I/O)	—	E-E	(1) Take the cassette tape out of the set and then turn off the power switch. (2) Turn on the power switch again, and press the EJECT and STOP buttons simultaneously within 2sec after the counter indicator is on. (3) When "OPEN" appears in the counter display, press the IN/+SHIFT button 11 times and then "On-Adj" will appear in the counter display. (4) Adjust C226 to obtain 17.7314MHz as the frequency of TP205's signal.
						<div data-bbox="534 1868 852 1921">TP205 : 17.7314 ± 0.0005MHz</div>

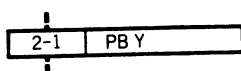
SECTION 4 DIAGRAMS AND CIRCUIT BOARDS

■ FOREWORD

1. Expression of connector

Connector is expressed in two ways.

- 1) The following illustrates 'CN2 pin 1' for example.



- 2) The following illustrates 'CN1 pins 1 and 2'.



2. Expression of wiring

As the following circuit diagram is divided to print on some sheets, such an indication as the following is found in the case the wiring extends over two or more divided sections.

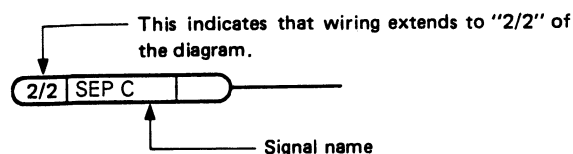
- 1) Circuit diagram divided into two or more sections:

Board No.	Board Name	Number of divided sections
10	VIDEO-1	2 (1/2~2/2)
11	VIDEO-2	2 (1/2~2/2)
12	AV PRE/REC	2 (1/2~2/2)
20	FM AUDIO	3 (1/3~3/3)
21	NORMAL AUDIO (BR-S800)	4 (1/4~4/4)
23	AV I/O	2 (1/3~3/3)
30	M-CTL/SERVO	3 (1/2~2/2)
—	OVERALL	2 (1/2~2/2)

- 2) Indication of wiring which extends to another section:

(Example)

On the "1/2" diagram of VIDEO-1 board, such an indication as the following is found on the "SEP C" signal line.



In the above case, the end of the wiring is connected to the "SEP C" on the 2nd section of the diagram.

3. Wiring of connector

(Example)



In the above example, CN1 is connected with CN2 on 1 2 SYSCON board.

4. Signal flow on the diagram

The following arrow marks indicate the specified signal paths respectively.

- ➡ : RECORDING or EE signal path
- ➡ : PLAYBACK signal path
- ➡ : REC/PLAY signal path

5. Measurement of voltage and waveform

- 1) Voltage

Measured by digital voltmeter in REC or PB mode.

In the "symbol No." column of the DC voltage tables, there are some parts indicated with such symbols as "1A", "2B", etc. Each of those symbols indicates a section of the board which the part is located in. Moreover, some symbols are followed by symbol numbers of other parts, which are located near the objective parts and printed to show the rough locations of the objective parts since their symbol numbers are not specified on the board.

- 2) Waveform

Video: Unless otherwise indicated, (a) color bars signal input through LINE IN terminal in REC in S-VHS mode, (b) color bars signal of MHVE-2 Alignment tape in PB.

6. Unit of value

Unless otherwise specified:

- 1) Resistance is in Ω (1/6 W)
- 2) Capacitance in μF
- 3) Inductance in μH
- 4) Screened parts (in) are important for safety assurance. When replacing them, use specified parts.

7. Others

The wiring diagrams appearing in this section are generally common to the BR-S800E and the BR-S500E, however, there are exceptions that some parts are not used in the BR-S500E or are different in the ratings between the BR-S800E and the BR-S500E. Therefore, make sure to refer to the Electrical Parts List (section 6) to check the rating of parts and to check to see whether the parts are used or not.

4.1 INDEX TO PAGES OF MAIN BOARDS

Board No.	Board Name	Page of diagram			
		Block diagram	Schematic diagram	Circuit board	Parts list
01	MOTHER-1	—	4-16	4-18	6-2
02	MOTHER-2	—	4-17	4-19	6-2
03	SLOT MOTHER	—	4-20	4-21	6-2
10	VIDEO-1	4-5, 6, 8, 9	4-22, 23	4-24, 25	6-2 ~ 10
11	VIDEO-2	4-5, 7, 8, 9	4-30, 31	4-32, 35	6-10 ~ 17
12	AV PRE/REC	4-5, 8, 9	4-36, 37	4-36	6-17 ~ 19
15	BURST ADD	4-9	4-29	4-28	6-19
20	FM AUDIO	4-10, 12	4-46 ~ 48	4-51	6-20 ~ 23
21	NORMAL AUDIO (BR-S800)	4-11	4-38 ~ 41	4-42	6-23 ~ 28
22	NORMAL AUDIO (BR-S500)	4-13	4-44	4-45	6-28 ~ 29
23	AV I/O	4-8, 10, 12	4-52 ~ 54	4-57	6-30 ~ 34
30	SERVO/M-CTL	4-4	4-58, 59	4-60, 63	6-34 ~ 40
31	SYS CON	4-14, 15	4-64	4-65	6-40 ~ 41
32	OPE-CPU	4-10, 12, 15	4-66	4-68	6-42
33	OPE-VR	4-15	4-67	4-68	6-42 ~ 43
34	OPE-SW	4-15	4-66	4-68	6-43 ~ 44
35	OPE-DIAL	4-15	4-66	4-68	6-44
40	REAR	4-8	4-69	4-70	6-44 ~ 45
50	END SENSOR	—	4-21	4-21	6-45
51	REC SAFE SW	—	—	4-21	6-45
52	S-SWITCH	—	—	4-21	6-45
53	MODE MOTOR	—	—	4-21	6-45
54	C. HOUSING	—	—	4-21	6-45
55	MECHA TERMINAL	—	—	4-21	6-46
56	A/C HEAD	—	—	4-21	6-46
60	PRIMARY	—	4-71	4-72	6-46
61	SW REGULATOR	—	4-71	4-72	6-46 ~ 47
62	REGULATOR	—	4-71	4-72	6-47 ~ 48
64	LINE FILTER	—	4-71	4-72	6-48
94	DRUM	—	—	4-36	6-48
95	CONNECTOR	—	—	—	6-48

4.2 REPLACING SUBMINATURE "CHIP" PARTS

1. General description

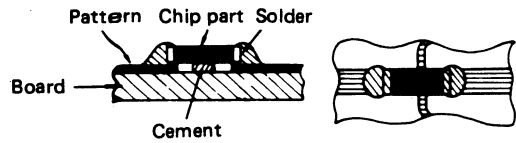
Some of resistors, variable resistors, shorting jumpers (0 Ω resistors), ceramic capacitors, transistors, diodes are chip parts. Those removed once cannot be used again.

2. Replacement of chip parts

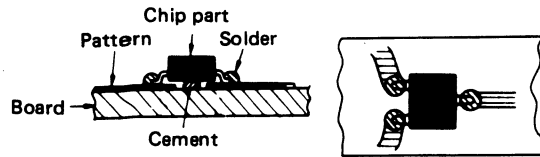
Replacement of chip parts should be performed as follows. Use a soldering iron (17 W for 260–30°C approx.) that has sharp-pointed tip and high performance in insulation. It is more convenient to use a soldering iron with solder absorber (55 W approx.).

(1) Soldered condition of chip parts

- Resistors, capacitors, etc.



- Transistors, diodes, etc.



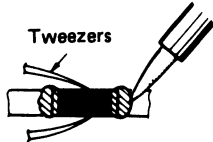
(2) Removing of chip parts

- Resistors, capacitors, etc.

- i) Melt solder at a side.



- ii) Holding the chip with tweezers, melt solder at the other side.

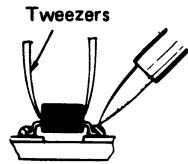


- iii) Take off the chip in twisting and sliding motion.



- Transistors, diodes, etc.

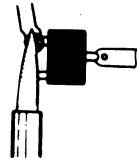
- i) Melt solder at the side of single lead.



- ii) Lift the unsoldered side upwards.



- iii) Simultaneously melt solder at two leads of the other side and pull up the chip.

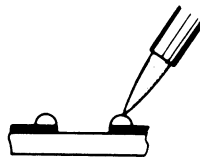


(3) Preheating and soldering of chip parts

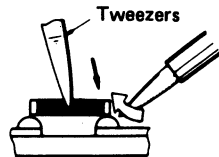
Except transistors, make sure to preheat all chip parts, capacitors in particular, with a hot wind of 150°C approx. (of a hair dryer, etc.) for 2 minutes just before soldering, and immediately solder by a soldering iron of approx. 30 W.

(4) Attaching of chip parts

- i) Heap up a proper amount of solder beforehand.



- ii) Holding down a new chip by tweezers, solder it to the board by a soldering iron to melt solder from its lower part to the upper part (in the direction shown by a big arrow).



- Note:
- Don't heat chip parts over 3 seconds.
 - Don't rub electrodes.
 - Don't use chip parts which were once removed.
 - No cement is required.

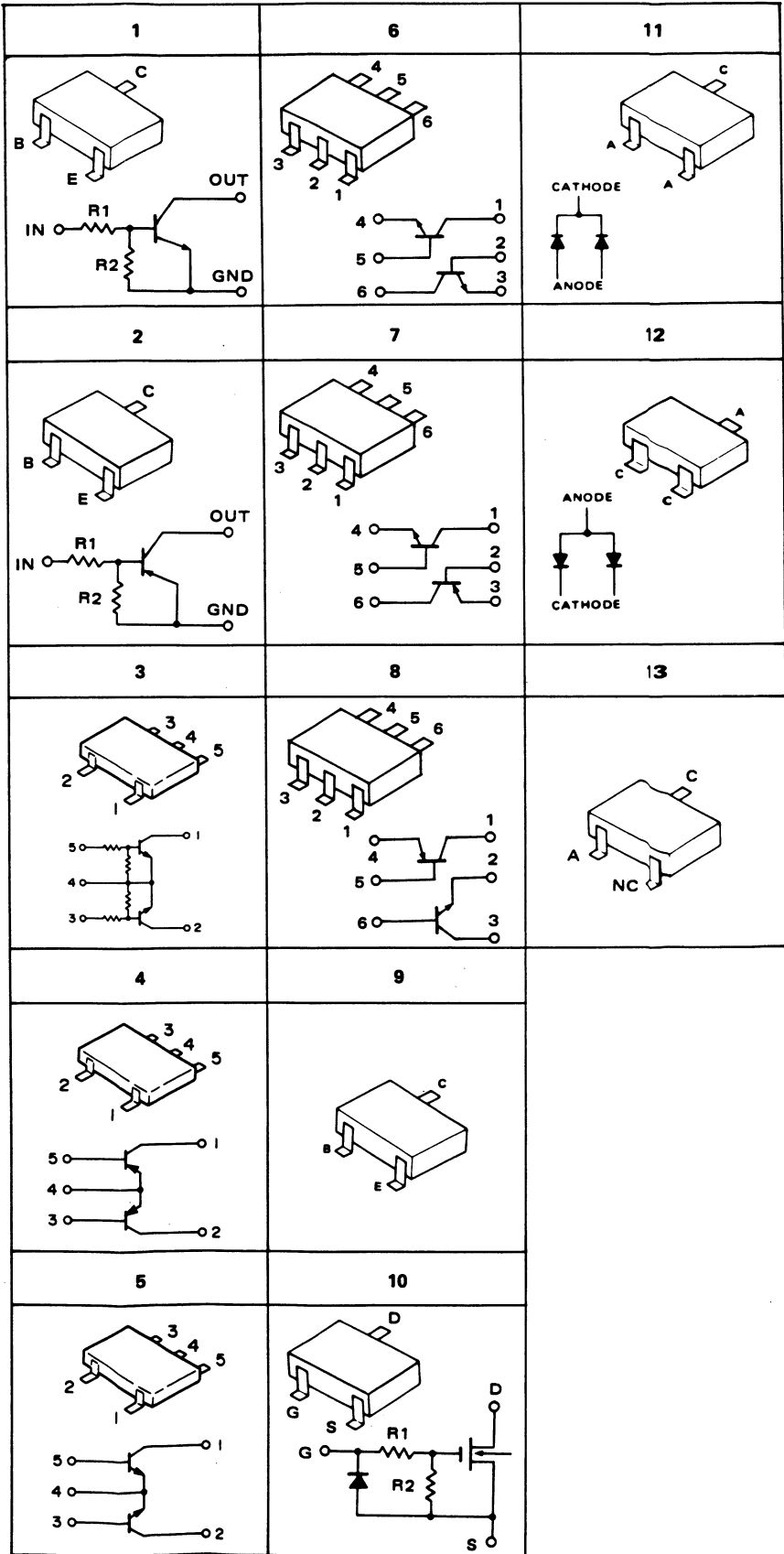
3. Shapes of transistors & diodes

• Transistors

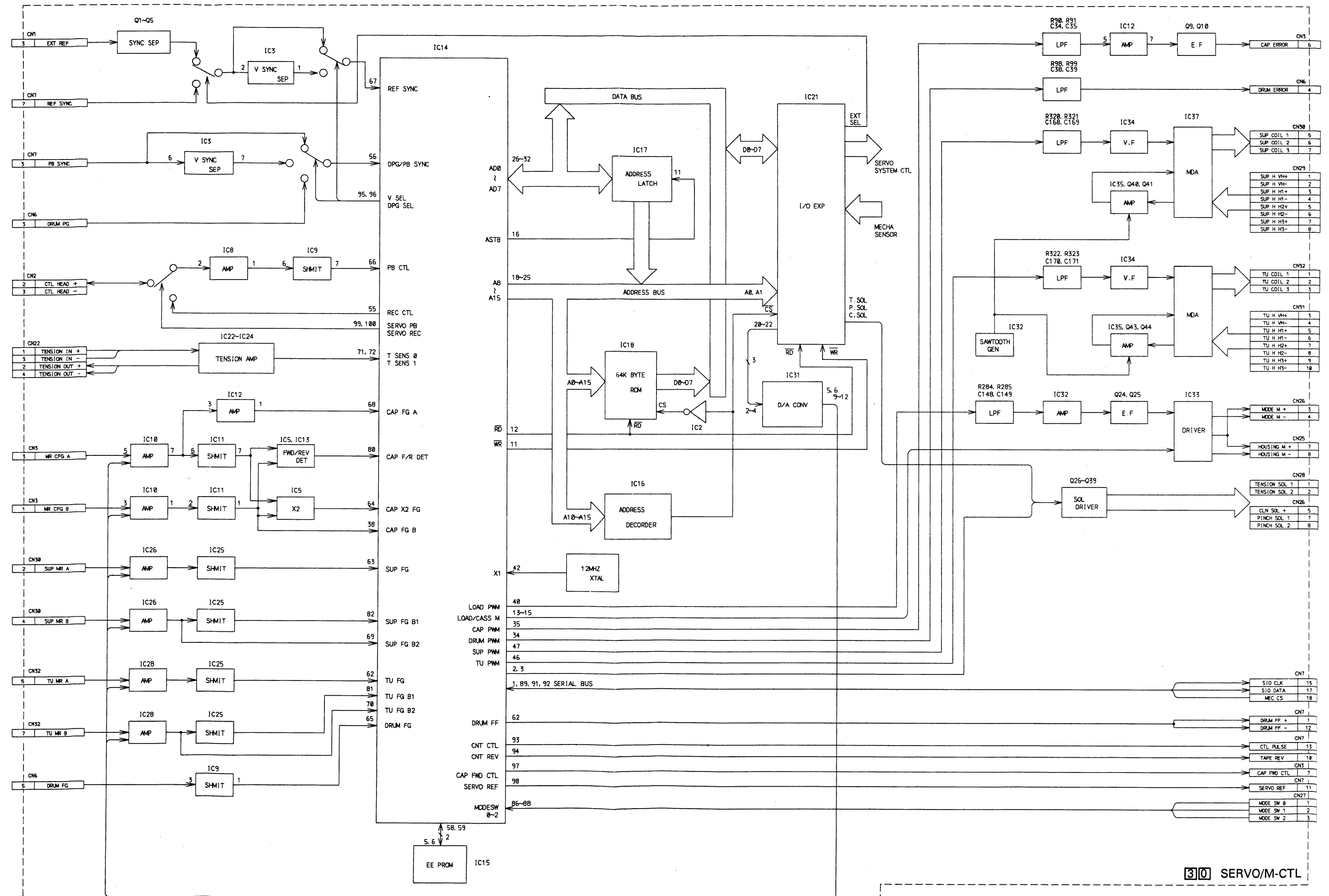
DTA124EK	2
DTA144EK	2
DTC114EK	1
DTC114YK	1
DTC144EK	1
DTC144EU	1
FMG2	3
FMS1	4
FMW1	5
IMX1	6
IMZ1	7
IMZ2	8
2SA1022C	9
2SB709	9
2SC2412K	9
2SC2778	9
2SC4081	9
2SD601/A	9
2SD602/A	9
2SK621	10

• Diodes

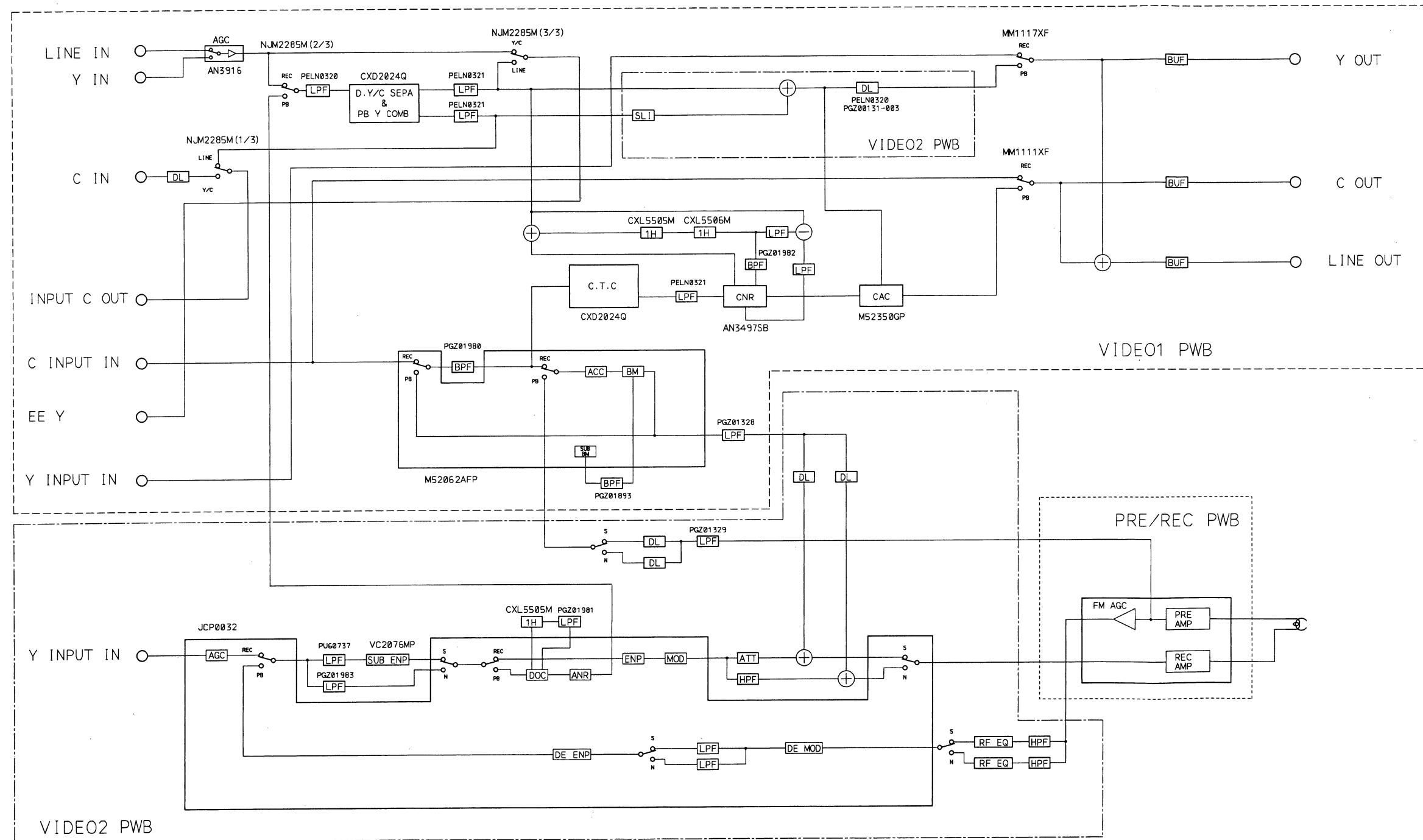
DAN202K	11
DAP202K	12
MA28WA	13
MA3056	13
MA3075	13



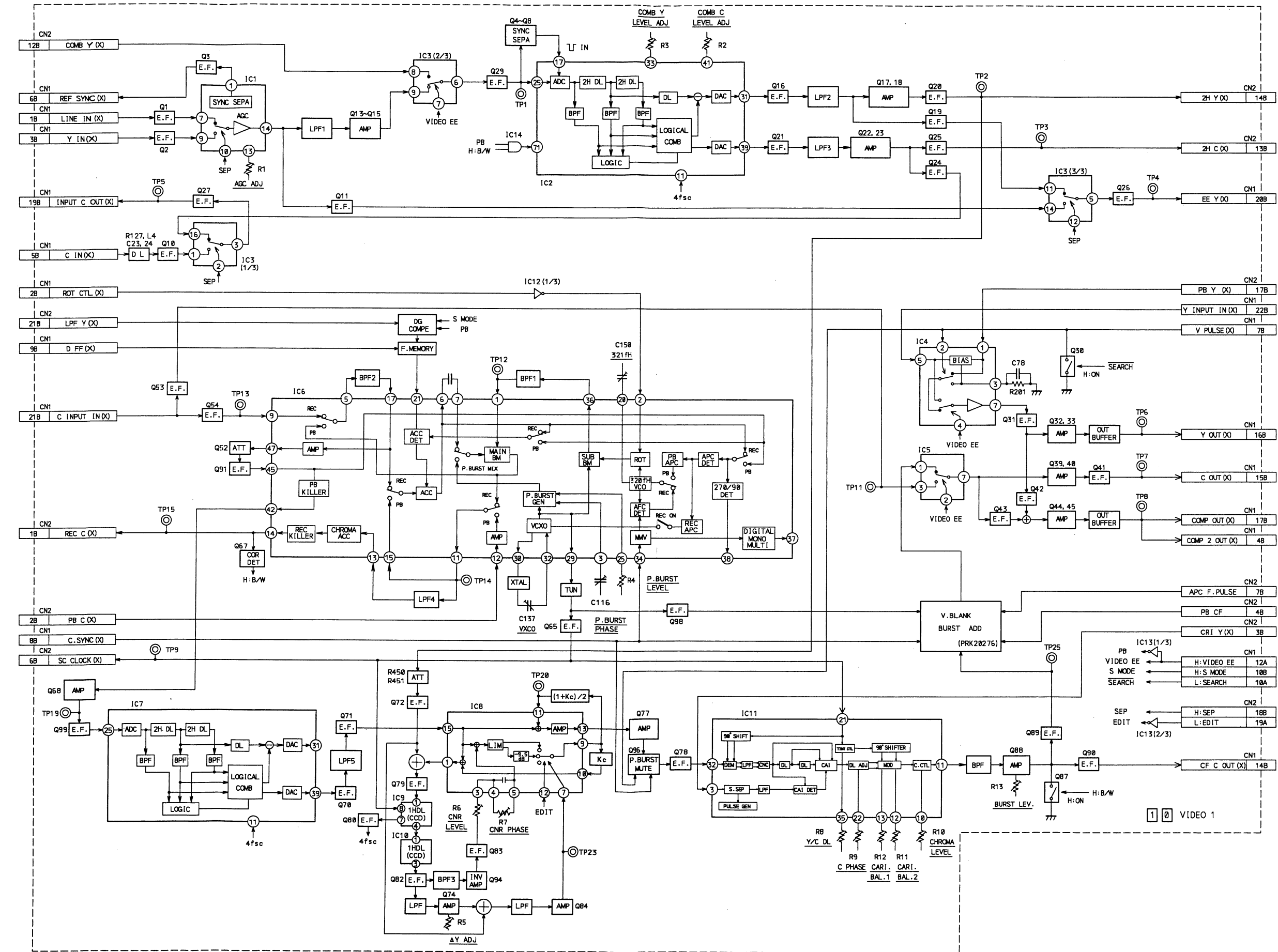
4.3 SERVO/MECHA-CONTROL BLOCK DIAGRAM



4.4 VIDEO SIGNAL BLOCK DIAGRAM

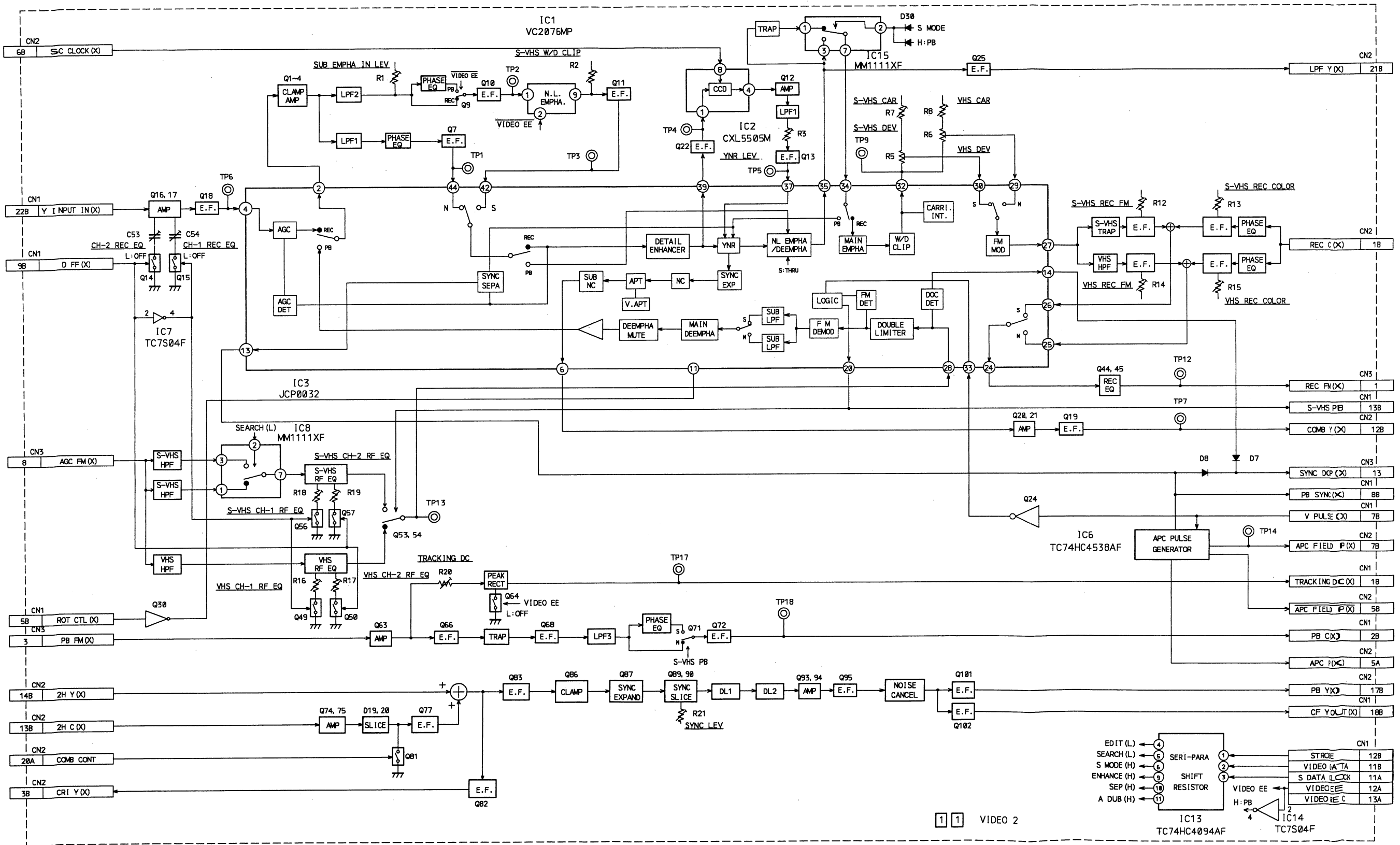


4.5 VIDEO-1 BLOCK DIAGRAM

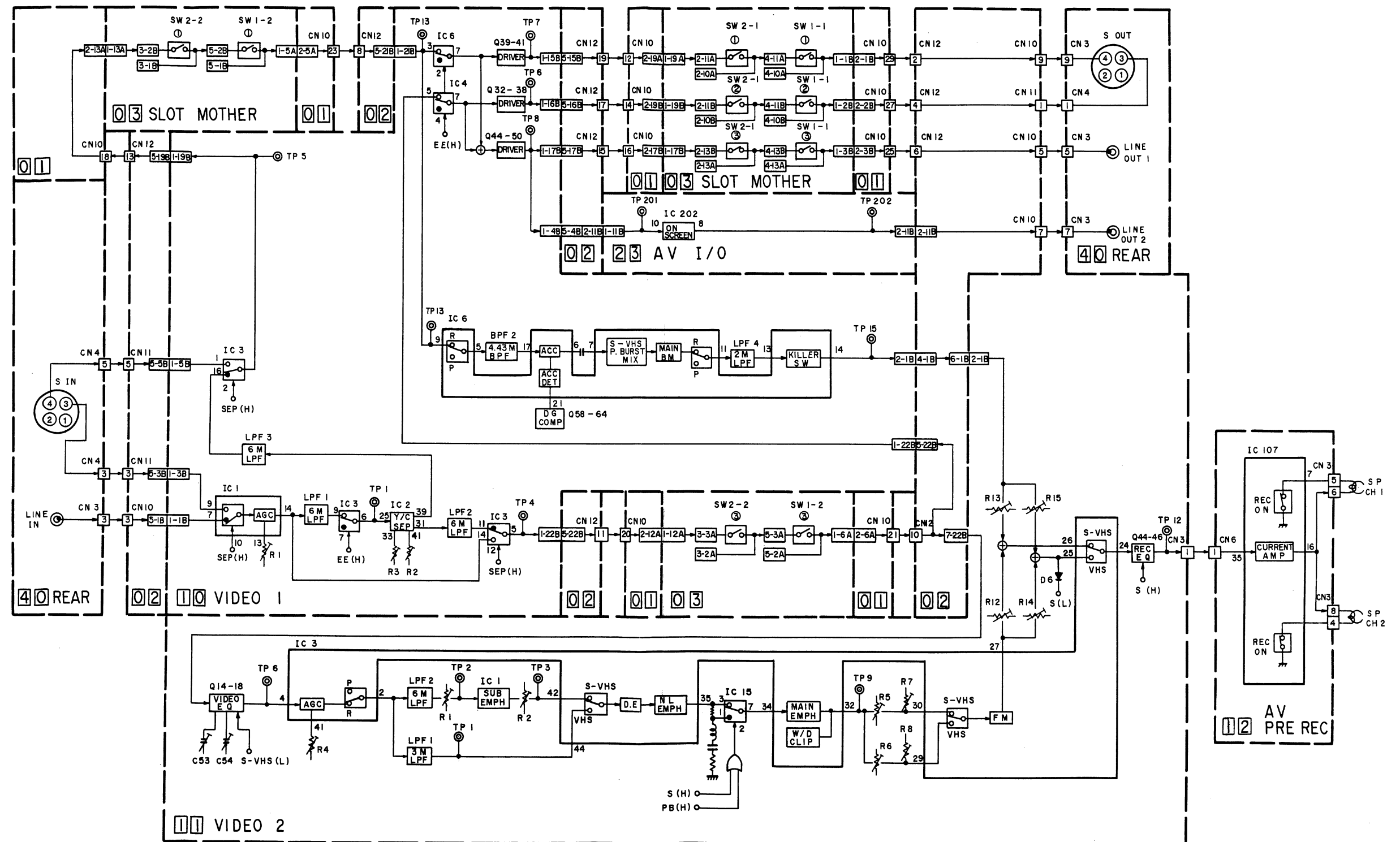


1 0 VIDEO 1

4.6 VIDEO-2 BLOCK DIAGRAM



4.7 VIDEO RECORDING SIGNAL BLOCK DIAGRAM

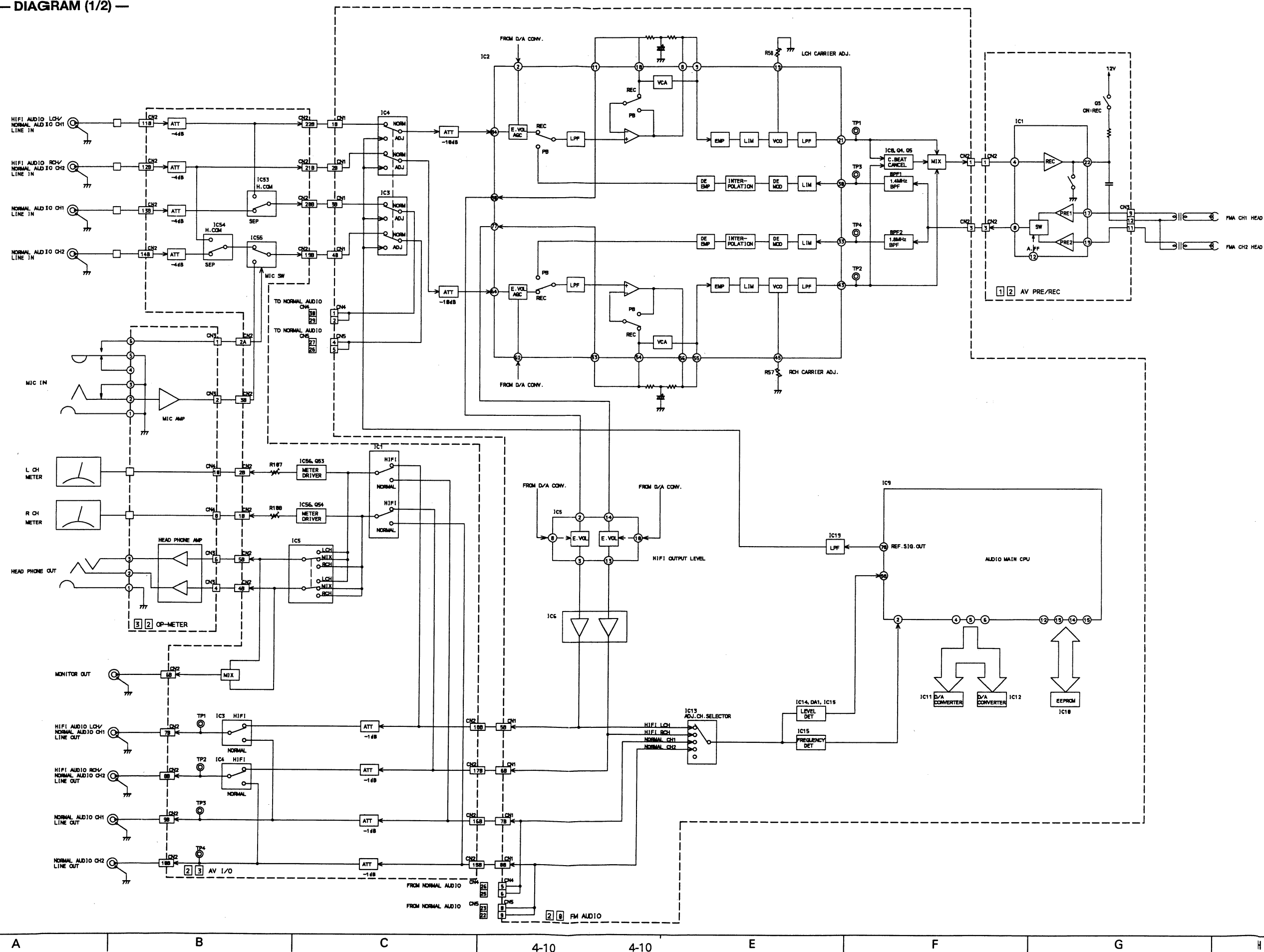


6



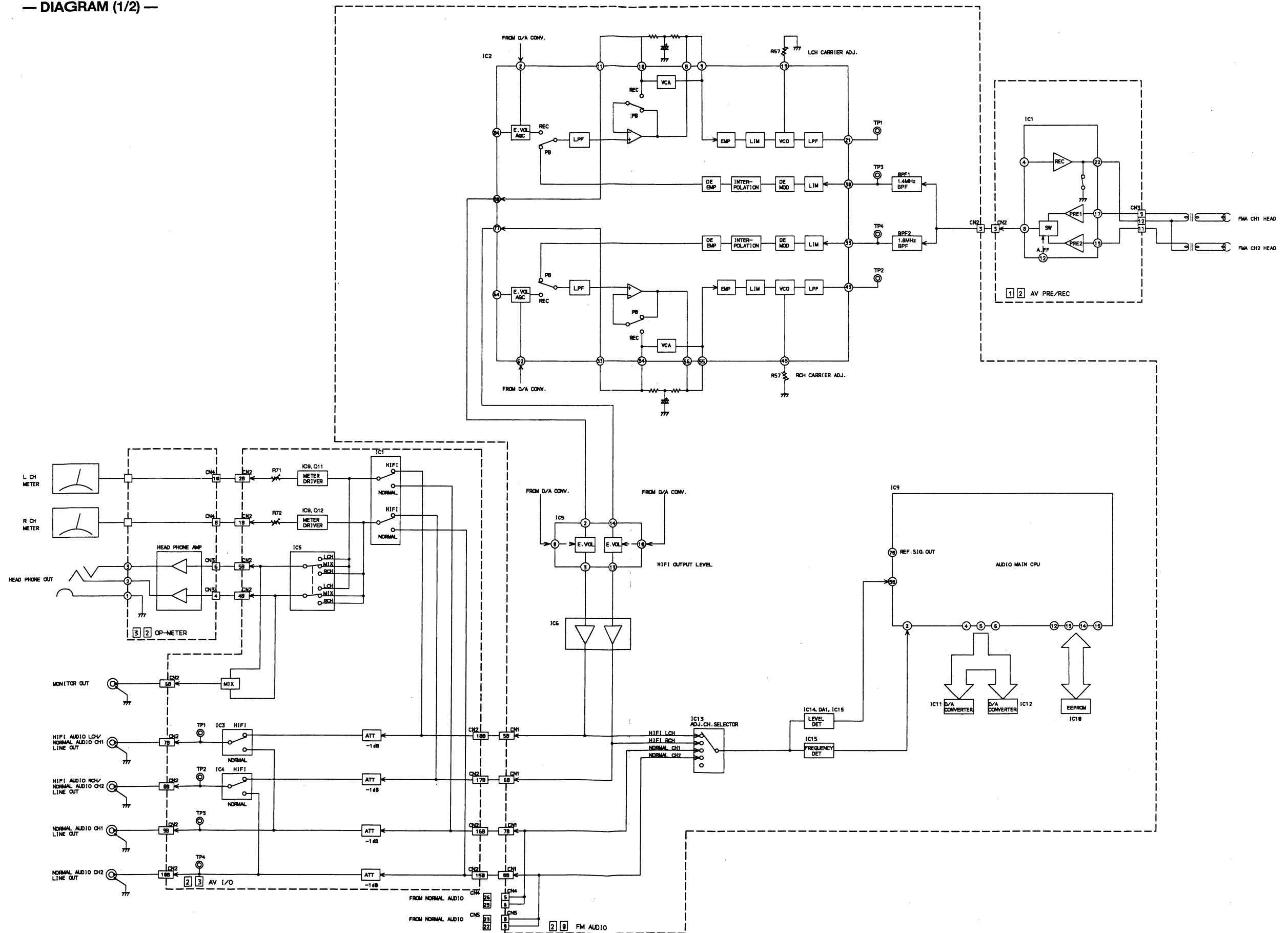
A	B	C	4-9	4-9	E	F	G	H
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4.9 AUDIO BLOCK DIAGRAM (BR-S800E)
— DIAGRAM (1/2) —

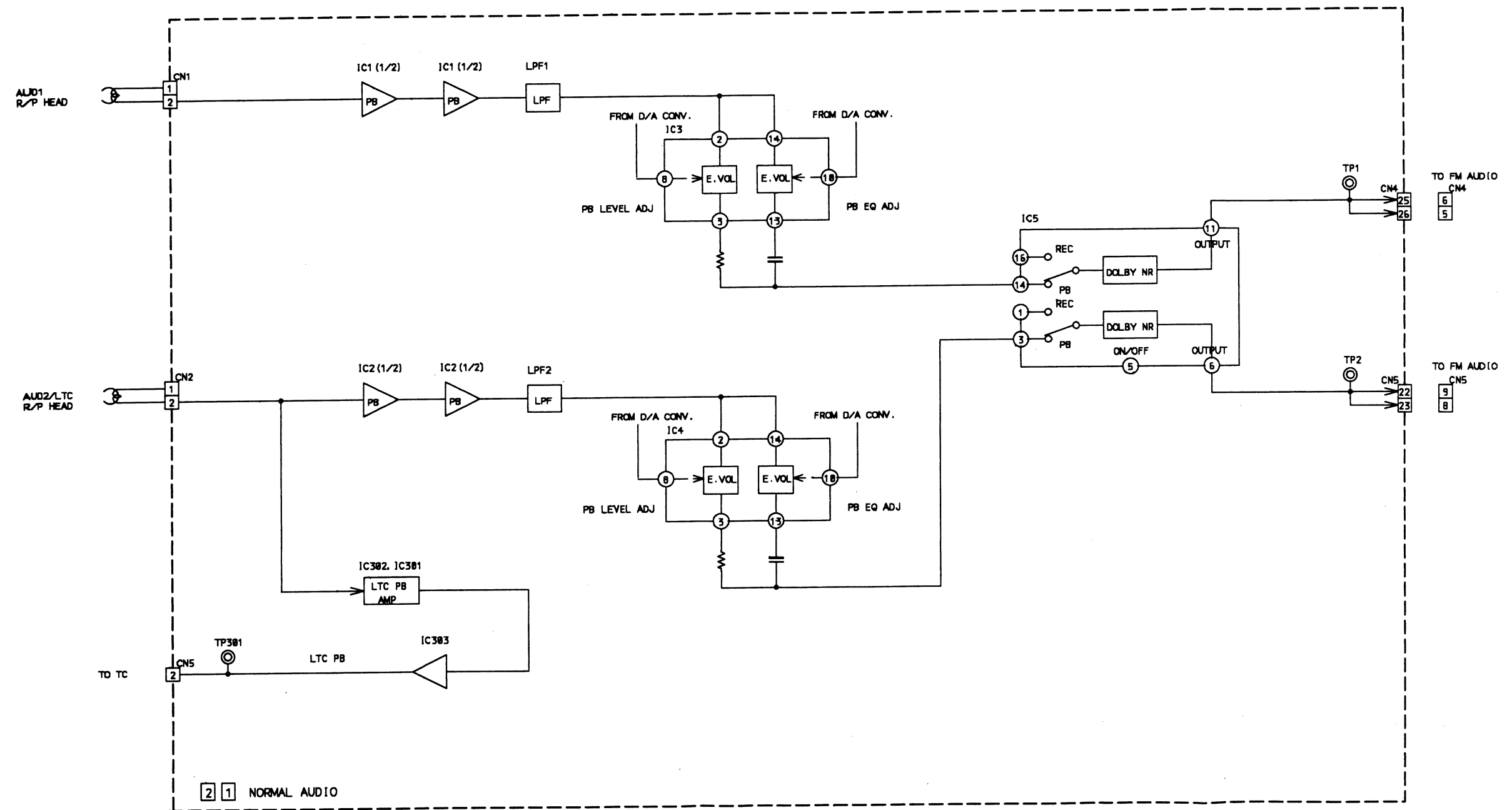


H

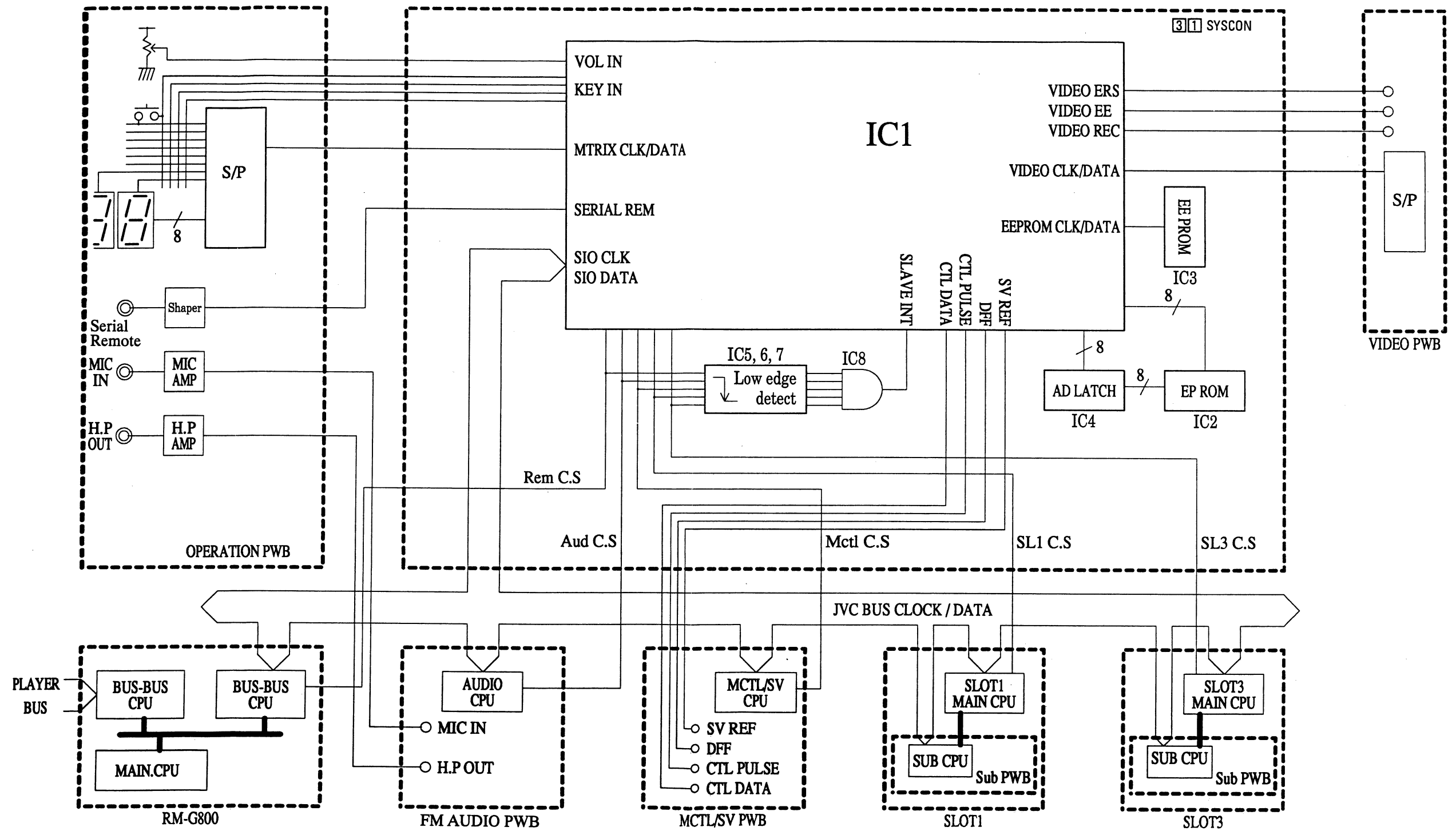
4.10 AUDIO BLOCK DIAGRAM (BR-S500E)
— DIAGRAM (1/2) —



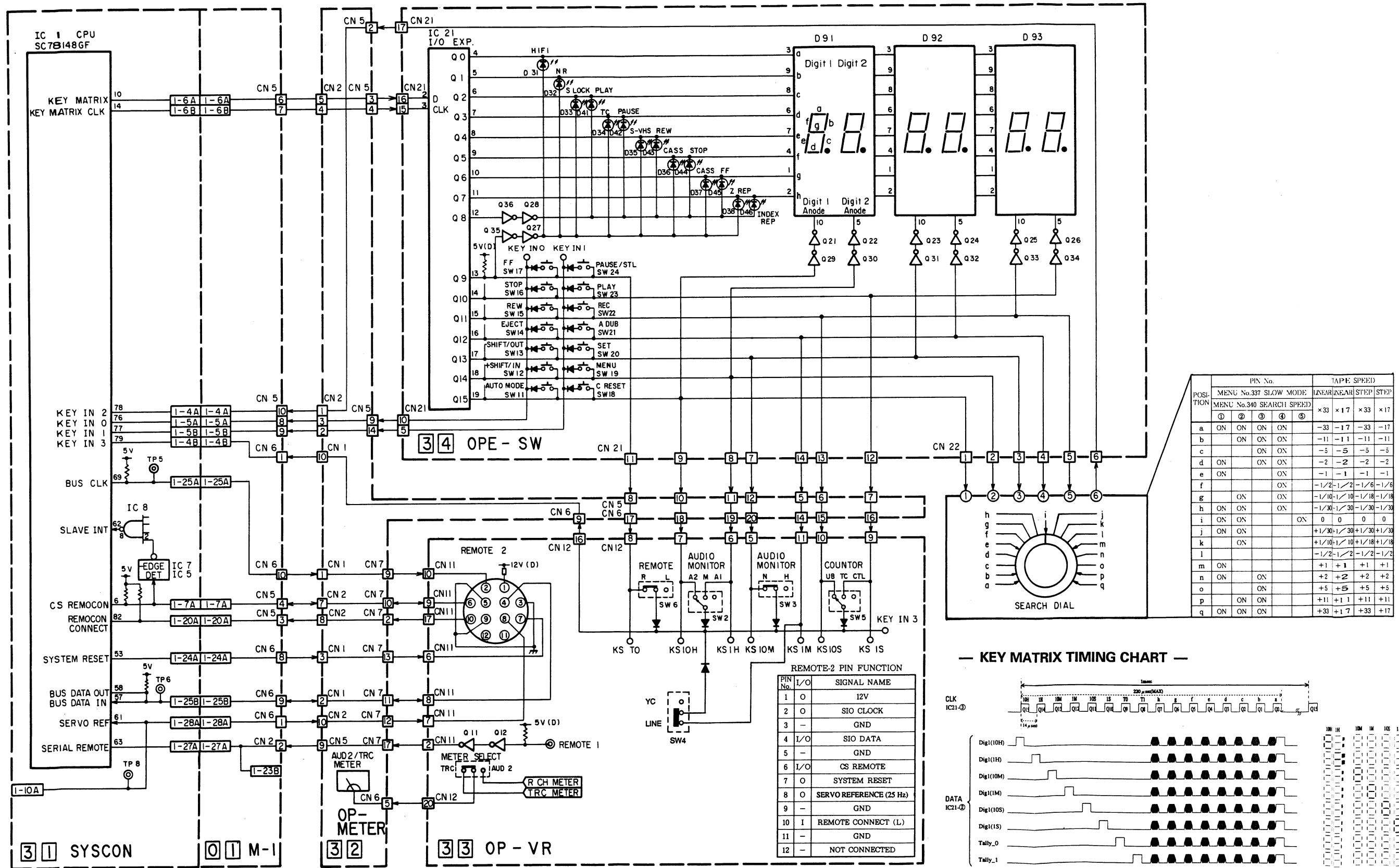
— DIAGRAM (2/2) —



4.11 SYSCON BLOCK DIAGRAM



4.12 OPERATION BLOCK DIAGRAM

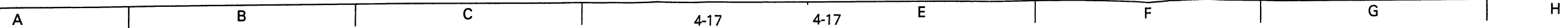


POSITION	PIN No.					TAPE SPEED			
	MENU No.337 SLOW MODE					LINEAR	NEAR	STEP	STEP
	①	②	③	④	⑤	×33	×17	×33	×17
a	ON	ON	ON	ON	ON	-33	-17	-33	-17
b	ON	ON	ON	ON	ON	-11	-11	-11	-11
c	ON	ON	ON	ON	ON	-5	-5	-5	-5
d	ON	ON	ON	ON	ON	-2	-2	-2	-2
e	ON	ON	ON	ON	ON	-1	-1	-1	-1
f	ON	ON	ON	ON	ON	-1/2	-1/2	-1/6	-1/6
g	ON	ON	ON	ON	ON	-1/10	-1/10	-1/18	-1/18
h	ON	ON	ON	ON	ON	-1/30	-1/30	-1/30	-1/30
i	ON	ON	ON	ON	ON	0	0	0	0
j	ON	ON	ON	ON	ON	+1/30	+1/30	+1/30	+1/30
k	ON	ON	ON	ON	ON	+1/10	+1/10	+1/18	+1/18
l	ON	ON	ON	ON	ON	+1/2	+1/2	+1/2	+1/2
m	ON	ON	ON	ON	ON	+1	+1	+1	+1
n	ON	ON	ON	ON	ON	+2	+2	+2	+2
o	ON	ON	ON	ON	ON	+5	+5	+5	+5
p	ON	ON	ON	ON	ON	+11	+11	+11	+11
q	ON	ON	ON	ON	ON	+33	+17	+33	+17

PIN No.	I/O	SIGNAL NAME
1	O	12V
2	O	SIO CLOCK
3	-	GND
4	I/O	SIO DATA
5	-	GND
6	I/O	CS REMOTE
7	O	SYSTEM RESET
8	O	SERVO REFERENCE (25 Hz)
9	-	GND
10	I	REMOTE CONNECT (L)
11	-	GND
12	-	NOT CONNECTED

1





A vertical number line with tick marks and labels 1, 2, 3, 4, 5, and 6.

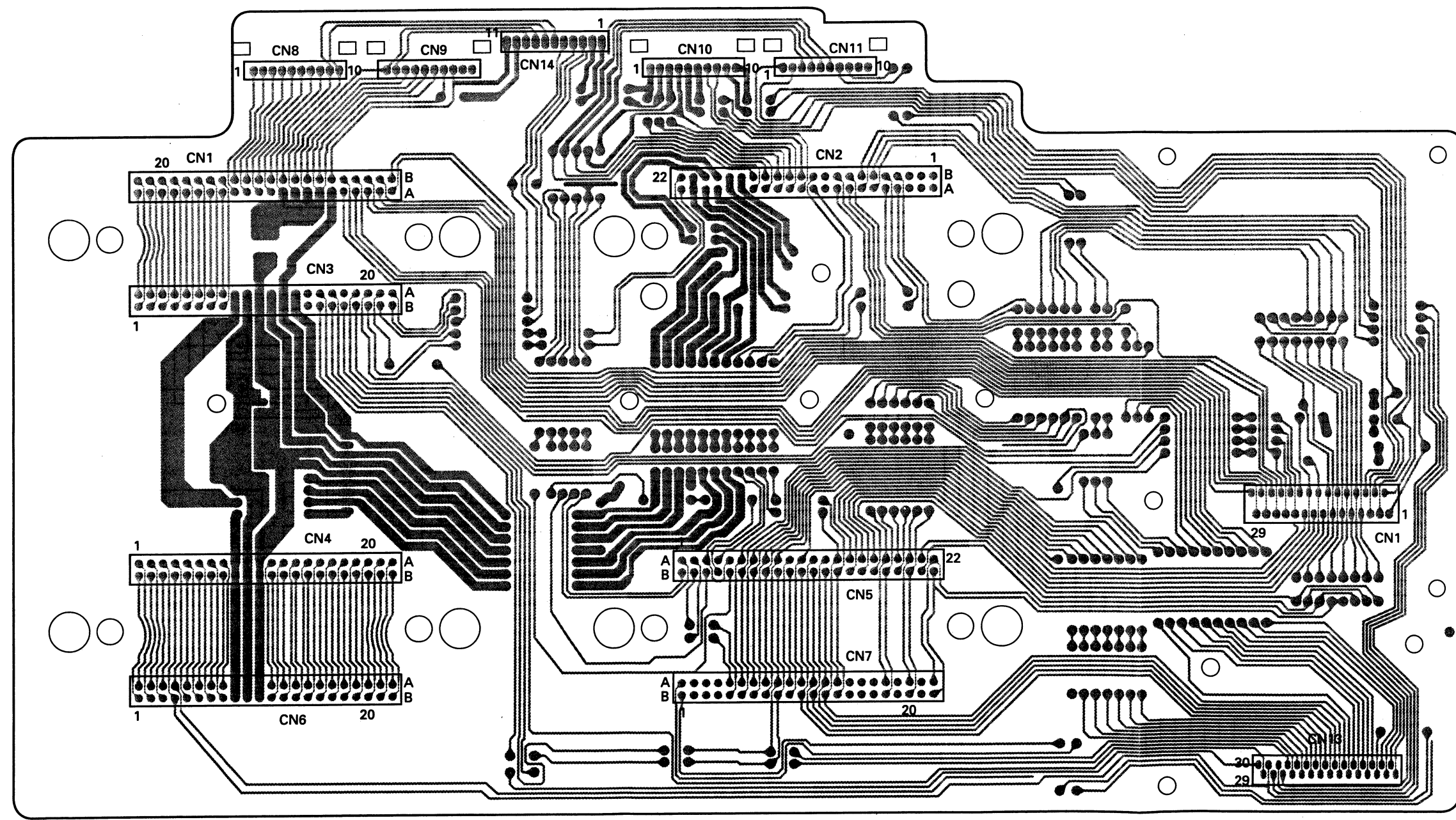
5



2

4.15 MOTHER-2 CIRCUIT BOARD

— SOLDER Side —



(PRK10164-01-01)



0 3 SLOT MOTHER

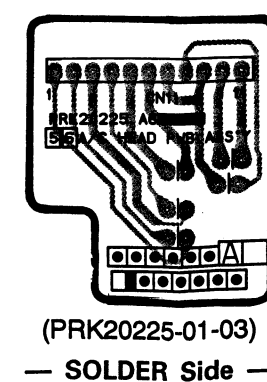
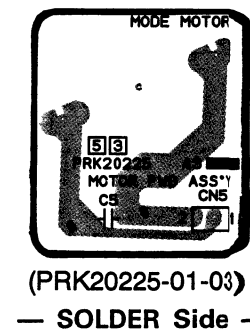
6



4



— C. HOUSING —



6

4.21 VIDEO-1 SCHEMATIC DIAGRAM — DIAGRAM (1/2) —

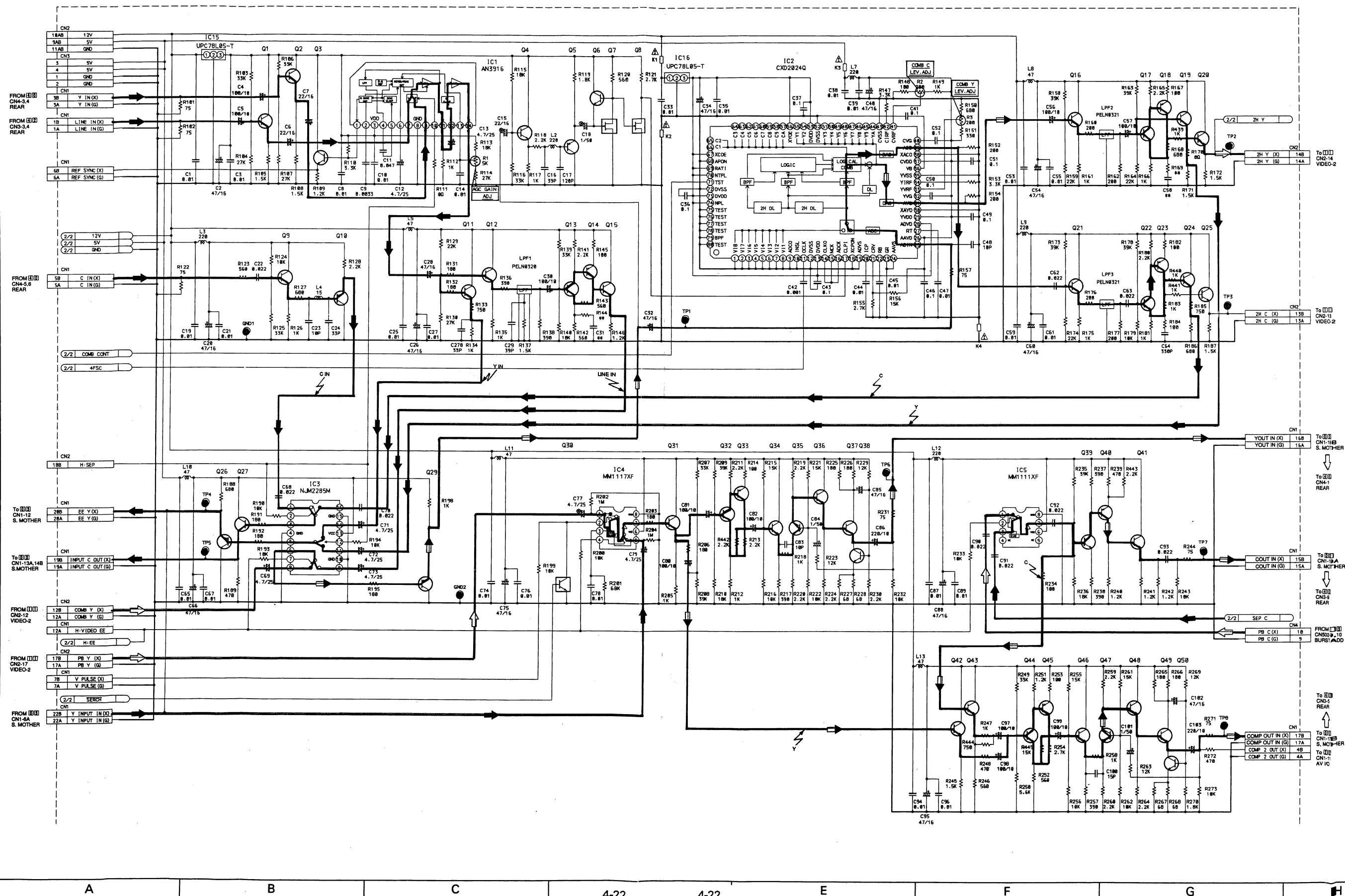
5

4

3

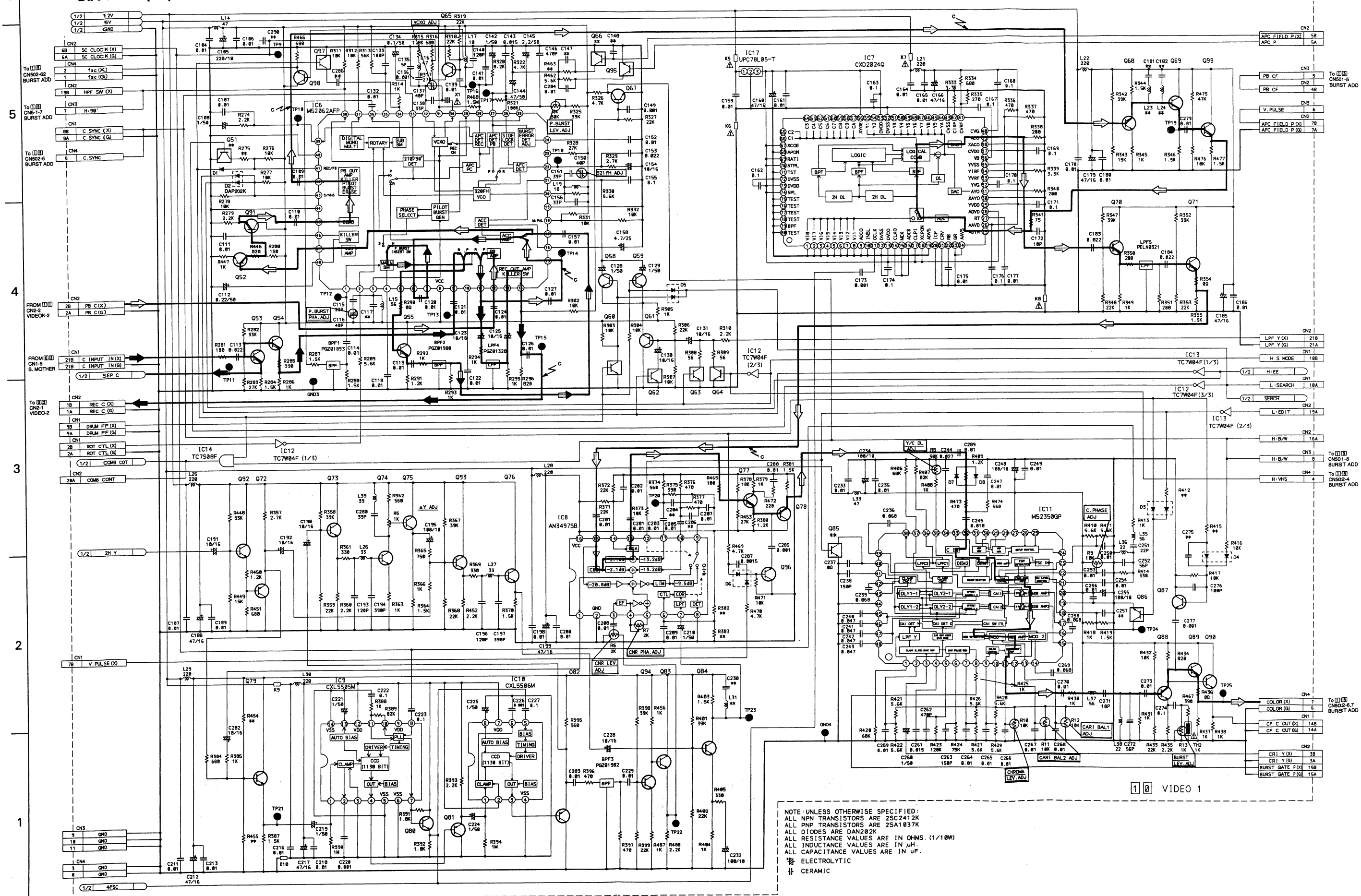
2

1



6

— DIAGRAM (2/2) —



4-23

4-23

E

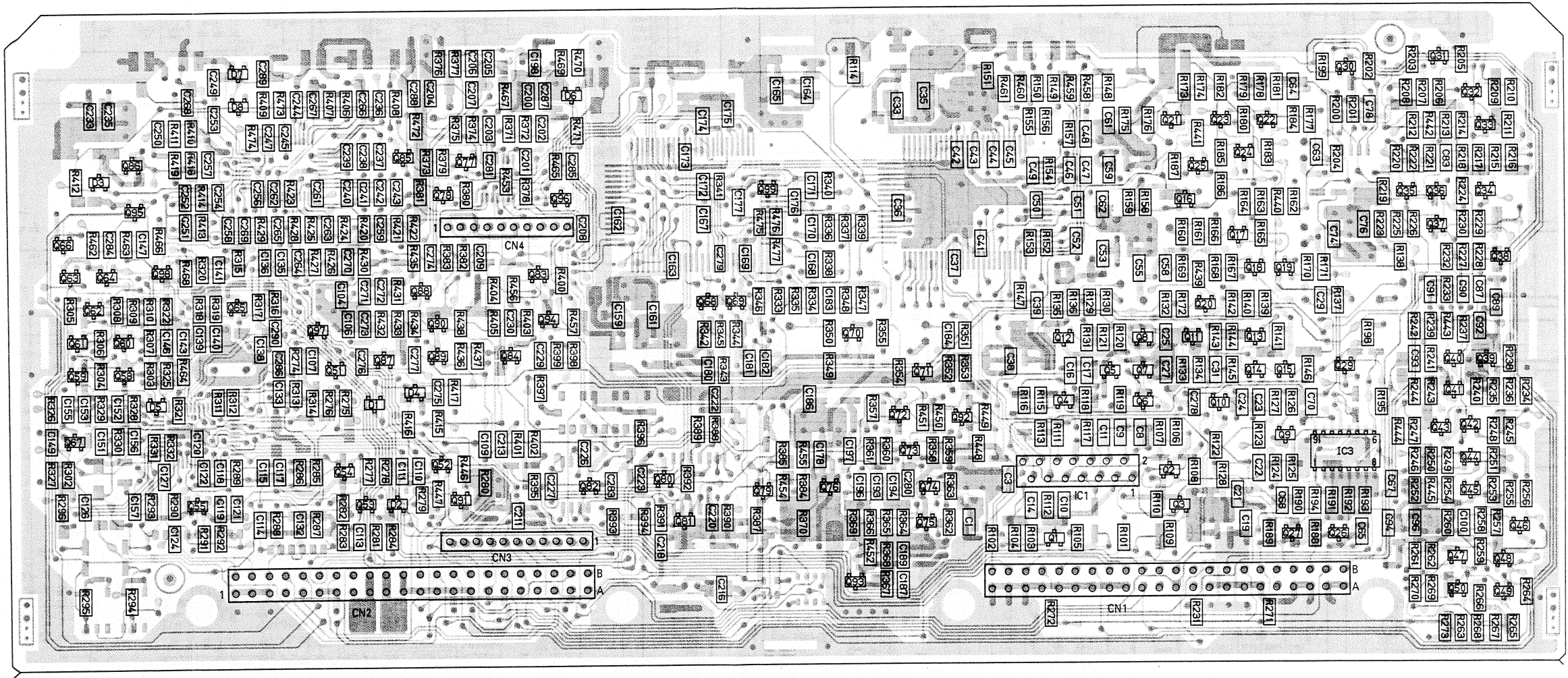
F

G

H

4.22 VIDEO-1 CIRCUIT BOARD

— SOLDER Side —

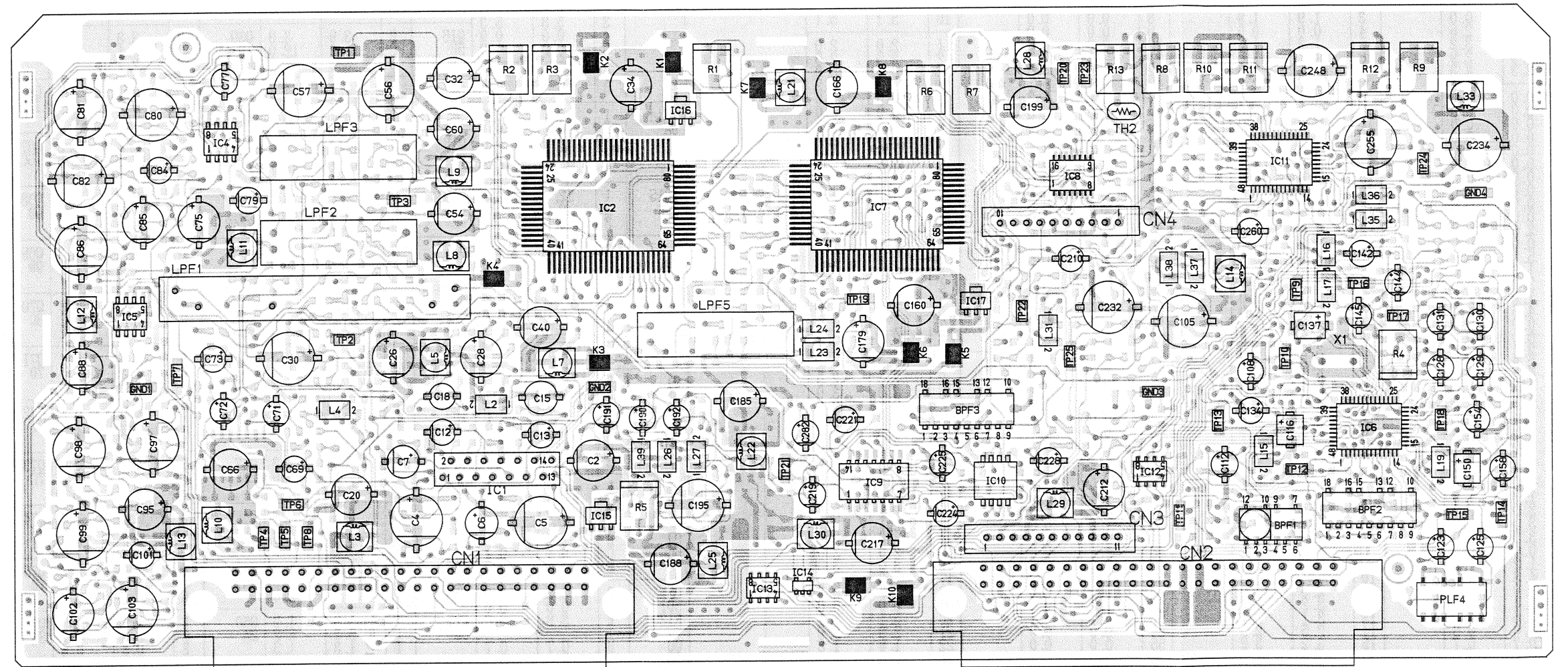


(PRK20262-01-02)

— MAIN WAVEFORMS OF VIDEO-1 CIRCUIT —

MAIN WAVEFORMS OF VIDEO SIGNALS												
TP1		TP2	TP3	TP4	TP5	TP6		TP7		TP8	TP9	
[REC] 1.5 Vp-p — S-VHS —	[PB] 1.5 Vp-p — MHVE-2H —	[PB] 1.8 Vp-p — MHVE-2H —	[REC] Burst level: 0.5 Vp-p — S-VHS —	[REC] 1.0 Vp-p — S-VHS —	[REC] Burst level: 0.24 Vp-p — S-VHS —	[REC] 2.1 Vp-p — S-VHS —	[PB] 2.0 Vp-p — MHVE-2H —	[REC] Burst level: 0.59 Vp-p — S-VHS —	[PB] Burst level: 0.6 Vp-p — MHVE-2H —	[REC] 2.1 Vp-p — S-VHS —	[PB] 2.1 Vp-p — MHVE-2H —	[REC] 0.76 Vp-p/4.4 MHz — S-VHS —

— PARTS Side —



(PRK20262-01-02)

— MAIN WAVEFORMS OF VIDEO-1 CIRCUIT —

TP10	TP11	TP12	TP13	TP14	TP15	TP18	TP19	TP21	TP22	TP23	TP24
[REC] 0.035 Vp-p/7.8 Vp-p — S-VHS —	[REC] Burst level: 0.26 Vp-p — S-VHS —	[REC] 0.18 Vp-p/5 MHz — S-VHS —	[REC] Burst level: 0.18 Vp-p — S-VHS —	[PB] Burst level: 0.14 Vp-p — MHVE-2H —	[REC] Burst level: 0.22 Vp-p — S-VHS —	[REC] Upper: VIDEO OUT Lower: TP18	[PB] Burst level: 0.86 Vp-p — MHVE-2H —	[PB] 0.45 Vp-p — MHVE-2H —	[PB] Burst level: 0.078 Vp-p — MHVE-2H —	[PB] Upper: VIDEO OUT Lower: TP23	[PB] Upper: VIDEO OUT Lower: TP24

— DC Voltage (1/2) —

[illegible]

SYMBOL No.		REC	PB	SYMBOL No.		REC	PB	SYMBOL No.		REC	PB	SYMBOL No.		REC	PB																																
IC12 12C	1 2 3 4 5 6 7 8	5.3	5.3	Q13 4D	B C E	2.7 11.0 2.2	2.8 11.0 2.3	Q36 2E	B C E	7.5 11.9 6.9	7.4 11.9 6.9	Q61 16D	B C E	1.7 0.0 2.4	1.7 0.0 2.4																																
		5.2 0.0 0.0	5.2 0.0 0.0			6.9 6.9 6.2	6.9 6.9 6.2			Q62 15D	B C E			0.0 0.9 0.0	5.3 0.0 0.0																																
		0.0 5.3	0.0 5.3			11.6 11.6	11.6 11.6							0.0 0.0	0.0																																
		0.0 5.3	0.0 5.3			11.6 11.6	11.6 11.6							0.0 0.0	0.0																																
IC13 8A	1 2 3 4 5 6 7 8	5.0 5.0 5.3 0.0 0.0 0.0 0.0 5.3	5.0 5.0 5.3 0.0 0.0 0.0 0.0 5.3	Q15 3D	B C E	4.2 12.0 3.6	4.2 12.0 3.7	Q38 1E	B C E			1.7 6.2 1.1	1.7 6.2 1.1	Q63 16E	B C E	5.2 0.1 0.0	5.2 0.1 0.0																														
		5.3 0.0 0.0 0.0 0.0 0.0 0.0 5.3	5.3 0.0 0.0 0.0 0.0 0.0 0.0 5.3			12.0 3.3	12.0 3.3			9.1 9.1 2.7	9.1 9.1 2.7	Q64 15E	B C E			0.0 0.1 0.0	0.0 0.1 0.0																														
		5.3 0.0 0.0 0.0 0.0 0.0 0.0 5.3	5.3 0.0 0.0 0.0 0.0 0.0 0.0 5.3			12.0 3.3	12.0 3.3			9.1 9.1 2.7	9.1 9.1 2.7					Q65 14D	B C E	2.4 5.1 2.0	2.4 5.1 2.0																												
		5.3 0.0 0.0 0.0 0.0 0.0 0.0 5.3	5.3 0.0 0.0 0.0 0.0 0.0 0.0 5.3			12.0 3.3	12.0 3.3			9.1 9.1 2.7	9.1 9.1 2.7							Q67 16C	B C E	0.7 0.1 0.0	0.7 0.1 0.0																										
IC14 9A	1 2 3 4 5	0.1 0.1 0.0 0.0 5.3	5.3 0.1 0.0 0.0 5.3	Q18 4E	B C E	11.0 3.7	11.0 3.7	Q41 2C; Q40	B C E	6.2 9.8	6.2 9.8			Q67 16C	B C E					0.7 0.1 0.0	0.7 0.1 0.0																										
		0.1 0.0 0.0 0.0 5.3	5.3 0.1 0.0 0.0 5.3			11.0 3.7	11.0 3.7			6.2 9.8	6.2 9.8	0.7 0.1 0.0	0.7 0.1 0.0																																		
		0.1 0.0 0.0 0.0 5.3	5.3 0.1 0.0 0.0 5.3			11.0 3.7	11.0 3.7			6.2 9.8	6.2 9.8	0.7 0.1 0.0	0.7 0.1 0.0																																		
		0.1 0.0 0.0 0.0 5.3	5.3 0.1 0.0 0.0 5.3			11.0 3.7	11.0 3.7			6.2 9.8	6.2 9.8	0.7 0.1 0.0	0.7 0.1 0.0																																		
IC15 7B	1 2 3	12.0 0.0 5.1	12.0 0.0 5.1	Q19 4E	B C E	4.2 12.0 3.6	4.2 12.0 3.6	Q42 2C; R248	B C E	6.2 11.9 5.6	6.2 11.9 5.6	Q68 9D	B C E	3.2 7.9 2.7	3.2 7.9 2.7																																
		0.0 5.1	0.0 5.1			12.0 3.6	12.0 3.6			11.9 5.6	11.9 5.6			7.9 2.7	7.9 2.7																																
		0.0 5.1	0.0 5.1			12.0 3.6	12.0 3.6			11.9 5.6	11.9 5.6			7.9 2.7	7.9 2.7																																
		0.0 5.1	0.0 5.1			12.0 3.6	12.0 3.6			11.9 5.6	11.9 5.6			7.9 2.7	7.9 2.7																																
IC16 7F	1 2 3	12.0 0.0 5.1	12.0 0.0 5.1	Q20 4D; Q11	B C E	5.8 12.0 5.2	5.8 12.0 5.2	Q43 2C; R247	B C E	3.3 11.9 2.7	3.3 11.9 2.7	Q69 9D	B C E	7.9 11.8 7.4	7.9 11.8 7.4																																
		0.0 5.1	0.0 5.1			12.0 5.2	12.0 5.2			11.9 2.7	11.9 2.7			11.8 7.4	11.8 7.4																																
		0.0 5.1	0.0 5.1			12.0 5.2	12.0 5.2			11.9 2.7	11.9 2.7			11.8 7.4	11.8 7.4																																
		0.0 5.1	0.0 5.1			12.0 5.2	12.0 5.2			11.9 2.7	11.9 2.7			11.8 7.4	11.8 7.4																																
IC17 10D	1 2 3	12.0 0.0 5.1	12.0 0.0 5.1	Q21 5F	B C E	3.8 11.9 3.3	3.9 11.9 3.3	Q44 2C; R251	B C E	1.8 11.1 1.2	1.8 11.1 1.2	Q70 8C	B C E	3.9 11.8 3.3	3.9 11.8 3.3																																
		0.0 5.1	0.0 5.1			11.9 3.3	11.9 3.3			11.1 1.2	11.1 1.2			11.8 3.3	11.8 3.3																																
		0.0 5.1	0.0 5.1			11.9 3.3	11.9 3.3			11.1 1.2	11.1 1.2			11.8 3.3	11.8 3.3																																
		0.0 5.1	0.0 5.1			11.9 3.3	11.9 3.3			11.1 1.2	11.1 1.2			11.8 3.3	11.8 3.3																																
TRANSISTOR				Q22 4F	B C E	2.4 11.1 1.9	2.4 11.1 1.8	Q45 2B; R253	B C E	11.1 4.4 11.7	11.2 4.5 11.8	Q71 7D	B C E	4.2 11.8 3.6	4.1 11.8 3.6																																
Q1 6B	B C E	2.3 5.1 1.8	2.3 5.1 1.8													Q23 4F	B C E	11.1 3.3 11.7	11.1 3.3 11.7	Q46 1B	B C E	4.6 11.9 4.0	4.6 11.9 4.0	Q72 7C	B C E	1.2 0.0 1.8	1.2 0.0 1.8																				
																												Q2 5C	B C E	2.3 5.1 1.7	2.3 5.1 1.7	Q24 4F; Q22	B C E	3.3 11.9 2.9	3.3 11.9 2.7	Q47 2B	B C E	4.7 4.5 4.2	4.8 4.5 4.2	Q73 7C	B C E	4.2 11.8 3.6	4.2 11.8 3.6				
																																												Q3 5B	B C E	4.6 5.1 4.2	4.6 5.1 4.2
				Q4 6C	B C E	3.9 5.1 3.3	3.9 5.1 3.2	Q26 3B	B C E	1.3 0.0 2.0	1.3 0.0 2.0	Q49 1A	B C E	7.1 9.8 6.2	7.1 9.8 6.2																																
Q5 5D; R120	B C E	3.2 0.0 3.8	3.2 0.0 3.8													Q27 3B	B C E	1.9 5.2 1.3	1.9 5.2 1.3	Q50 2A	B C E	6.5 0.8	6.5 0.8	Q76 8B	B C E	3.6 11.8 3.0	3.6 11.8 3.0																				
																												Q6 5C	B C E	0.7 5.1 3.6	0.7 5.1 3.6	Q29 3D	B C E	1.5 0.0 2.1	1.5 0.0 2.2	Q52 12C	B C E	2.6 3.0 2.0	2.8 3.3 1.9	Q77 12F; Q78	B C E	1.4 0.8 0.8	1.4 0.8 0.8				
																																												Q7 5D; Q6	B C E	3.6 0.7 0.0	3.6 0.7 0.0
				Q8 5D	B C E	0.7 4.6 0.0	0.7 4.6 0.0	Q31 2C	B C E	3.0 11.9 2.4	3.0 11.9 2.4	Q54 13C	B C E	2.2 5.1 1.7	2.2 5.1 1.6																																
Q9 4C	B C E	8.9 11.9 8.3	8.9 11.9 8.3													Q32 2F	B C E	3.7 11.0 3.2	3.8 11.0 3.2	Q55 14B; R291	B C E	2.4 5.1 1.8	2.6 5.1 1.9	Q80 10C	B C E	3.8 4.3 3.2	3.8 4.3 3.2																				
																												Q10 4C	B C E	8.3 0.0 8.9	8.3 0.0 8.9	Q33 1F	B C E	11.0 6.1 11.6	11.0 6.1 11.6	Q58 15D; Q59	B C E	1.8 2.4	1.3 2.4	Q81 9B	B C E	2.3 0.0 2.8	2.3 0.0 2.8				
																																												Q11 4D; Q8; Q13	B C E	6.1 12.0 5.7	6.1 12.0 5.7
				Q12 6D	B C E	6.1 12.0 5.5	6.1 12.0 5.5	Q35 2E	B C E	4.7 7.4 4.1	4.7 7.5 4.1	Q60 15D; Q61	B C E	2.6 1.3 0.0	1.6 0.0																																

— DC Voltage (2/2) —

SYMBOL No.		REC	PB	SYMBOL No.		REC	PB	SYMBOL No.		REC	PB	SYMBOL No.		REC	PB																																						
Q84 11D	B C E	1.8	1.8	CN1	16B	0.0	0.0	BURST ADD BOARD				Q509	B C E	4.1	4.1																																						
		3.4	3.4		INTEGRATED CIRCUIT				4.0	4.0																																											
		1.2	1.2		17B	0.0	0.0	IC501	1	3.0	3.0	Q510	B C E	2.2	2.2																																						
Q86 15F	B C E	1.5	2.0		18B	3.8	3.8		2	3.7	0.1			Q511	B C E	4.9	4.9																																				
		2.8	2.7		19A	0.0	0.0		3	0.0	0.0					1.7	1.7																																				
Q87 13D	B C E	0.0	0.0		19B	1.3	1.3		4	0.0	0.0	Q512	B C E	5.2	5.2																																						
		0.0	0.0		20A	0.0	0.0		5	0.0	0.0			0.0	0.0																																						
Q88 12E; C274	B C E	3.5	3.5		20B	2.0	2.0		6	3.0	4.9	Q513	B C E	0.2	0.2																																						
		4.0	4.0		21A	0.0	0.0		7	4.9	2.7			0.0	0.0																																						
Q89 12D	B C E	4.0	4.0		21B	1.3	1.3		8	0.0	0.0	CN2	1A	0.0	0.0																																						
		5.1	5.1		22A	0.0	2.0	IC502	1	3.0	3.0			Q513	B C E	0.2	0.2																																				
Q90 12D; Q89	B C E	4.0	4.0		1B	0.0	0.0		2	1.6	1.6					Q513	B C E	0.1	0.1																																		
		3.4	3.4	2A	0.0	0.0	3		3.4	3.5	0.0							0.0																																			
Q91 12B	B C E	4.8	4.8	3A	0.0	0.0	4		0.0	0.0	IC503			1	0.0	0.0																																					
		5.1	5.1	3B	7.0	6.9	5		4.7	4.4					Q513	B C E	0.2	0.2																																			
Q92 7C; R449	B C E	3.7	3.7	4A	2.6	2.6	6		0.0	0.0							Q513	B C E	0.1	0.1																																	
		11.8	11.9	4B	0.0	0.0	7		4.8	4.4									0.0	0.0																																	
Q93 8B	B C E	4.2	4.2	5A	0.0	0.0	8		0.0	0.0					IC504	2	4.7	4.4																																			
		11.8	11.9	5B	0.0	0.0	9	4.9	4.4	Q513							B C E	0.2	0.2																																		
Q94 11D	B C E	1.8	1.8	6A	0.0	0.0	10	4.9	4.4									Q513	B C E	0.1	0.1																																
		4.0	4.0	6B	1.3	1.3	11	4.9	4.4											0.0	0.0																																
Q95 15E	B C E	0.0	0.0	7A	4.9	4.9	12	0.0	0.0	IC505		3	0.0				0.0																																				
		0.0	0.0	7B	0.0	0.0	13	4.9	4.4				Q513				B C E	0.2	0.2																																		
Q96 11E	B C E	0.4	0.4	8A	0.0	0.0	14	0.0	0.0									Q513	B C E	0.1	0.1																																
		0.0	0.0	8B	5.3	5.3	15	4.9	4.4											0.0	0.0																																
Q97 13D	B C E	0.0	0.0	9A	5.3	5.3	16	4.9	4.4		TRANSISTOR		4	0.0			0.0																																				
		0.0	0.0	9B	1.3	1.3	17	0.0	0.0					Q513			B C E	0.2	0.2																																		
Q98 15E	B C E	2.4	2.4	10A	1.2	1.2	18	0.0	0.0									Q513	B C E	0.1	0.1																																
		5.1	5.1	10B	0.0	0.0	19	0.0	0.0											0.0	0.0																																
CONNECTOR				CN3	1	0.0	0.0	IC505	4					0.0	0.0	Q513	B C E	0.2	0.2																																		
CN1	1A	0.0	0.0		2	0.0	0.0							Q501	B C E					2.4	2.4																																
	1B	0.0	0.0		3	0.0	0.0															Q502	B C E	1.8	1.8																												
	2A	0.0	0.0		4	5.3	5.3																			Q503	B C E	2.1	2.1																								
	2B	0.0	0.0		5	5.3	5.3			Q504		B C E																		2.1	2.1																						
	3A	0.0	0.0		6	4.9	4.9																									Q505	B C E	3.8	3.8																		
	3B	0.0	0.0		7	0.1	0.1																													Q506	B C E	2.3	2.3														
	4A	0.0	0.0		8	0.0	0.0																																	Q507	B C E	1.6	1.6										
	4B	0.0	0.0		9	0.0	0.0				Q508		B C E																															4.8	4.8								
	5A	0.0	0.0		10	0.0	0.0																																							Q509	B C E	4.0	4.0				
	5B	0.0	0.0		11	0.0	0.0																																											Q510	B C E	2.2	2.2
	6A	0.0	0.0		12	0.0	0.0																																														
	6B	4.2	4.2	13	0.0	0.0	Q512	B C E	0.2							0.2																																					
7A	0.0	0.0	14	0.0	0.0	Q513								B C E	0.1		0.1																																				
7B	0.0	0.0	15	0.0	0.0													Q514	B C E	0.0	0.0																																
8A	0.0	0.0	16	0.0	0.0																	Q515	B C E	0.0	0.0																												
8B	0.4	0.4	17	0.0	0.0					Q516		B C E														0.0	0.0																										
9A	0.0	0.0	18	0.0	0.0																							Q517	B C E	0.0	0.0																						
9B	0.0	0.0	19	0.0	0.0																											Q518	B C E	0.0	0.0																		
10A	5.3	5.3	20	0.0	0.0																															Q519	B C E	0.0	0.0														
10B	5.2	5.2	21	0.0	0.0						Q520		B C E																											0.0	0.0												
11A	0.0	0.0	22	0.0	0.0																																					Q521	B C E	0.0	0.0								
11B	0.0	0.0	23	0.0	0.0																																									Q522	B C E	0.0	0.0				
12A	5.0	0.0	24	0.0	0.0																																													Q523	B C E	0.0	0.0
12B	0.0	0.0	25	0.0	0.0		Q524	B C E	0.0							0.0																																					
13A	5.0	0.0	26	0.0	0.0	Q525								B C E	0.0		0.0																																				
13B	4.1	4.1	27	0.0	0.0													Q526	B C E	0.0	0.0																																
14A	0.0	0.0	28	0.0	0.0																	Q527	B C E	0.0	0.0																												
14B	3.4	3.4	29	0.0	0.0					Q528		B C E														0.0	0.0																										
15A	0.0	0.0	30	0.0	0.0																							Q529	B C E	0.0	0.0																						
15B	0.0	0.0	31	0.0	0.0																											Q530	B C E	0.0	0.0																		
16A	0.0	0.0	32	0.0	0.0																															Q531	B C E	0.0	0.0														

6

5



3



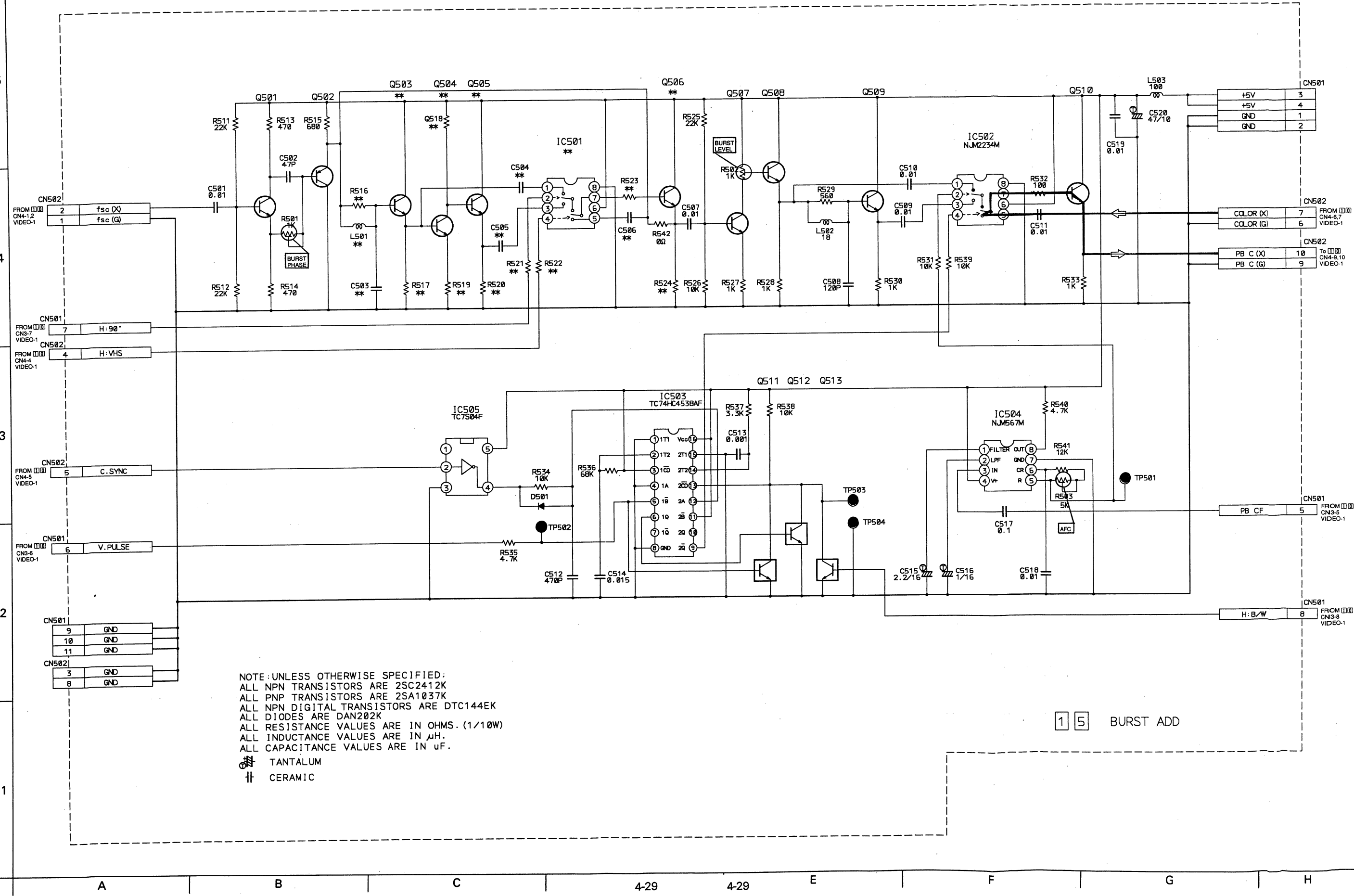
1

4-28

B

D

4.24 BURST ADD SCHEMATIC DIAGRAM



6



4-30

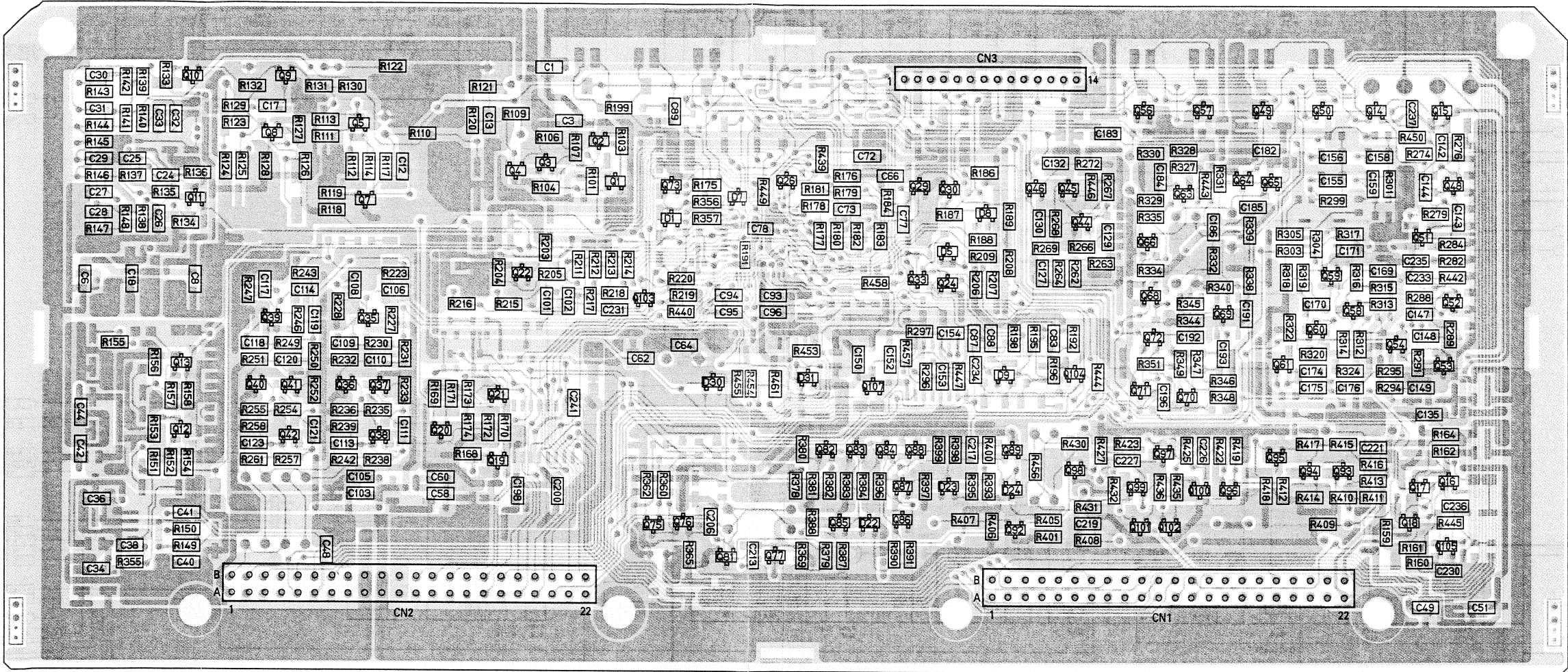
E

F

G

NOTE: UNLESS OTHERWISE SPECIFIED:
ALL NPN TRANSISTORS ARE 2SC2412K
ALL PNP TRANSISTORS ARE 2SA1037K
ALL DIODES ARE 1N4148
ALL RESISTANCE VALUES ARE IN OHMS. (1/10W)
ALL INDUCTANCE VALUES ARE IN μ H.
ALL CAPACITANCE VALUES ARE IN μ F.

— SOLDER Side —



(PRK20263-01-02)

— MAIN WAVEFORMS OF VIDEO-2 CIRCUIT —

TP1		TP2		TP3		TP4, TP5		TP6	TP7	TP8	TP9	
[REC] 0.6 Vp-p — VHS —	[PB] 0.5 Vp-p — MHVE-2 —	[REC] 0.4 Vp-p — S-VHS —	[PB] 0.35 Vp-p — MHVE-2H —	[REC] 0.6 Vp-p — S-VHS —	[PB] 0.5 Vp-p — MHVE-2H —	[REC] 0.45 Vp-p — S-VHS —	[REC] 0.5 Vp-p — VHS —	[REC] 0.48 Vp-p — S-VHS —	[PB] 1.5 Vp-p — MHVE-2H —	[REC] Upper: VIDEO OUT Lower: TP8	[REC] 0.99 Vp-p — S-VHS —	[REC] 0.8 Vp-p — VHS —
TP12		TP13		TP14	TP18							
[REC] 0.5 Vp-p — S-VHS —	[REC] 0.5 Vp-p — VHS —	[PB] 0.27 Vp-p — MHVE-2H —	[PB] 0.35 Vp-p — MHVE-2 —	[REC] 5.3 Vp-p/50 Hz — S-VHS —	[PB] Burst level: 0.05 Vp-p — S-VHS —							

— DC Voltage (1/2) —

SYMBOL No.		REC	PB	SYMBOL No.		REC	PB	SYMBOL No.		REC	PB	SYMBOL No.		REC	PB	
INTEGRATED CIRCUIT																
IC1 15F		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	IC5 8F	1 2 3 4 5	0 0 0 0 0	0 0 0 0 0	Q3 11F	B C E	10.9 5.5 11.6	10.9 5.5 11.6	Q25 9E	B C E	2.6 2.0 2.0	2.6 2.0 2.0
					IC6 7D	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Q4 11F	B C E	5.5 11.9 4.9	5.5 12.0 4.9	Q26 9F	B C E	5.3 0.0 0.0	5.3 0.0 0.0
									Q5 13F	B C E	1.8 3.8 1.2	1.8 4.1 1.2	Q27 8E	B C E	5.3 0.0 0.0	5.3 0.0 0.0
									Q6 12E	B C E	0.1 0.0 1.2	2.0 1.4 1.3	Q28 8E	B C E	0.0 0.0 0.0	0.3 5.3 0.0
IC2 15B		1 2 3 4 5 6 7 8 9 10 11 12 13 14	2 3 4 5 6 7 8 9 10 11 12 13 14	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	IC7 8G	1 2 3 4 5	0.0 0.0 5.3	0.0 0.0 5.3	Q7 13E	B C E	1.2 0.0 1.8	1.4 2.0 2.0	Q30 7F	B C E	0.0 0.0 0.0	0.0 0.0 0.0
					IC8 3E	1 2 3 4 5 6 7 8	6.5 1.1 0.0 0.0 0.0 1.1 0.0 0.0	5.5 1.7 0.0 0.0 0.0 0.6 0.8 0.0	Q8 14F	B C E	1.8 3.8 1.2	1.8 4.1 1.2	Q31 7E	B C E	0.0 0.0 0.0	0.0 0.0 0.0
					IC11 12D	1 2 3 4 5	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	Q9 14G	B C E	0.1 0.3 1.2	2.1 1.4 1.4	Q32 7D	B C E	0.0 0.0 0.0	0.0 0.0 0.0
					IC13 11C	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Q10 14G	B C E	1.2 0.0 1.8	1.4 0.0 2.1	Q33 7E	B C E	0.2 3.0 0.0	1.8 3.7 1.3
IC3 9E		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	IC14 8G	1 2 3 4 5	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	Q11 14E	B C E	0.8 0.0 1.4	0.8 0.0 1.4	Q34 10F	B C E	5.2 0.0 0.0	5.2 0.0 0.0
					IC15 8D	1 2 3 4 5 6 7 8	2.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Q12 15C	B C E	1.6 2.3 1.0	1.6 2.3 0.9	Q35 13D	B C E	5.8 11.9 5.2	5.8 11.6 5.1
									Q13 15D	B C E	2.6 2.5 2.5	3.1 2.2 2.4	Q36 13D	B C E	4.1 4.8 0.0	4.1 4.8 0.0
									Q14 3F	B C E	2.1 0.1 0.0	0.1 0.0 0.0	Q37 13D	B C E	8.2 11.6 7.6	8.2 11.6 7.6
IC4 9C		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	TRANSISTOR				Q15 2F	B C E	2.2 0.0 0.0	0.0 0.0 0.0	Q38 13C :Q37	B C E	4.0 8.2 3.4	4.0 8.2 3.4	
				Q1 10F	B C E	4.8 1.4 4.8	4.8 12.0 4.8	Q16 2C	B C E	4.2 8.4 3.6	4.2 8.4 3.6	Q39 14D	B C E	5.8 11.9 5.2	5.8 11.6 5.2	
				Q2 10F	B C E	4.8 10.8 4.8	4.8 10.9 4.3	Q17 2C	B C E	8.4 9.0 9.0	8.4 9.1 9.1	Q40 14D	B C E	4.4 0.0 5.1	4.5 0.0 5.1	
								Q18 2B	B C E	2.9 12.0 2.7	2.9 12.0 2.3	Q41 13D	B C E	8.2 11.6 7.6	8.2 11.6 7.6	

— DC Voltage (2/2) —

[illegible]

6

5

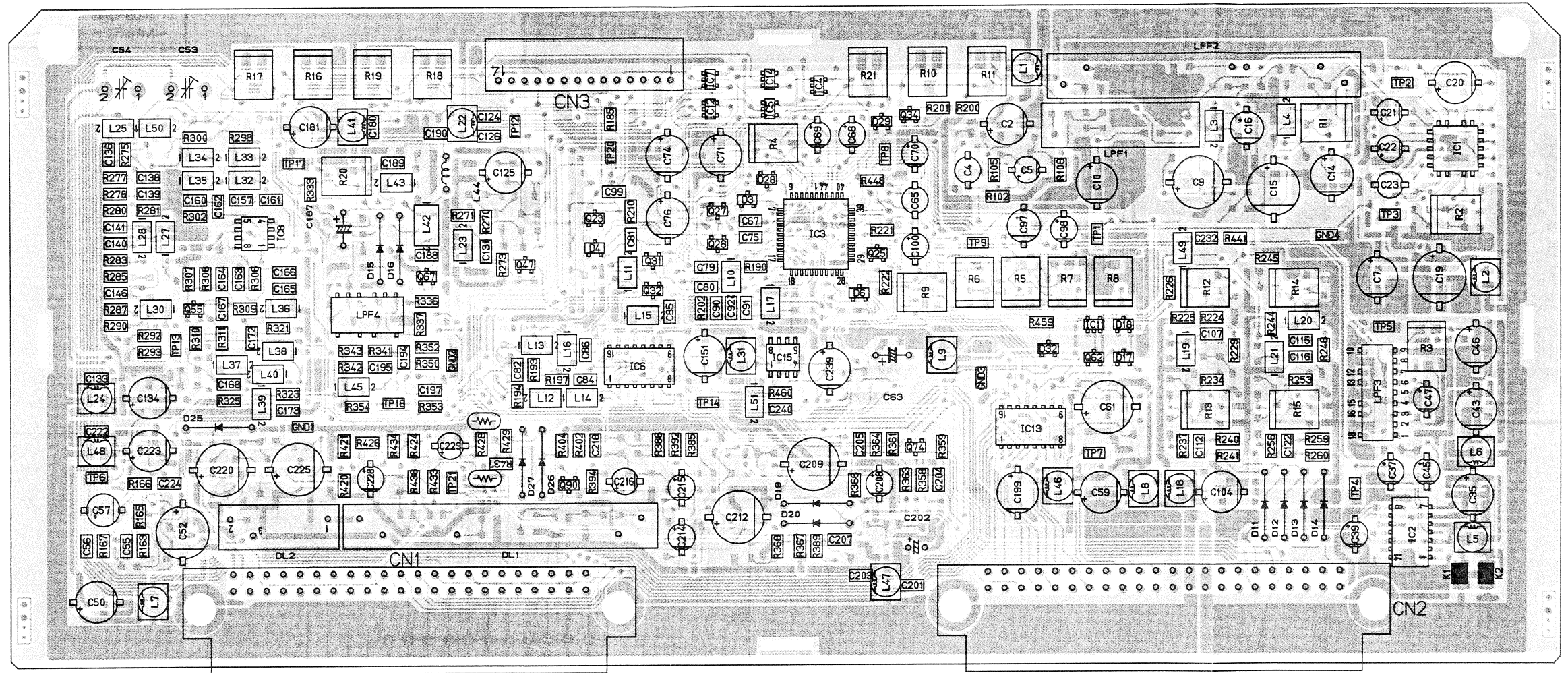
4

3

2

1

— PARTS Side —



(PRK20263-01-02)

A

B

C

4-35

4-35

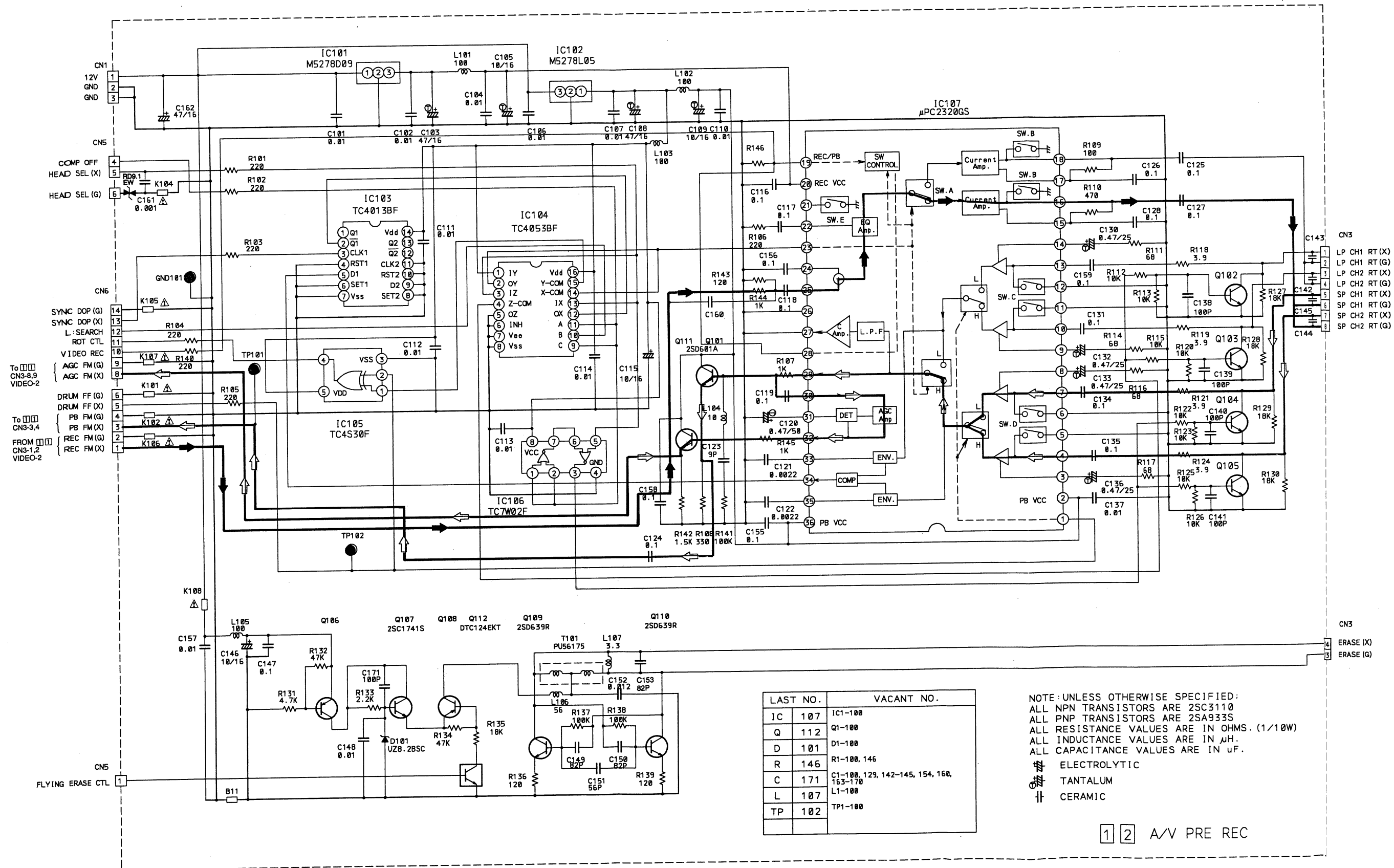
E

F

G

H

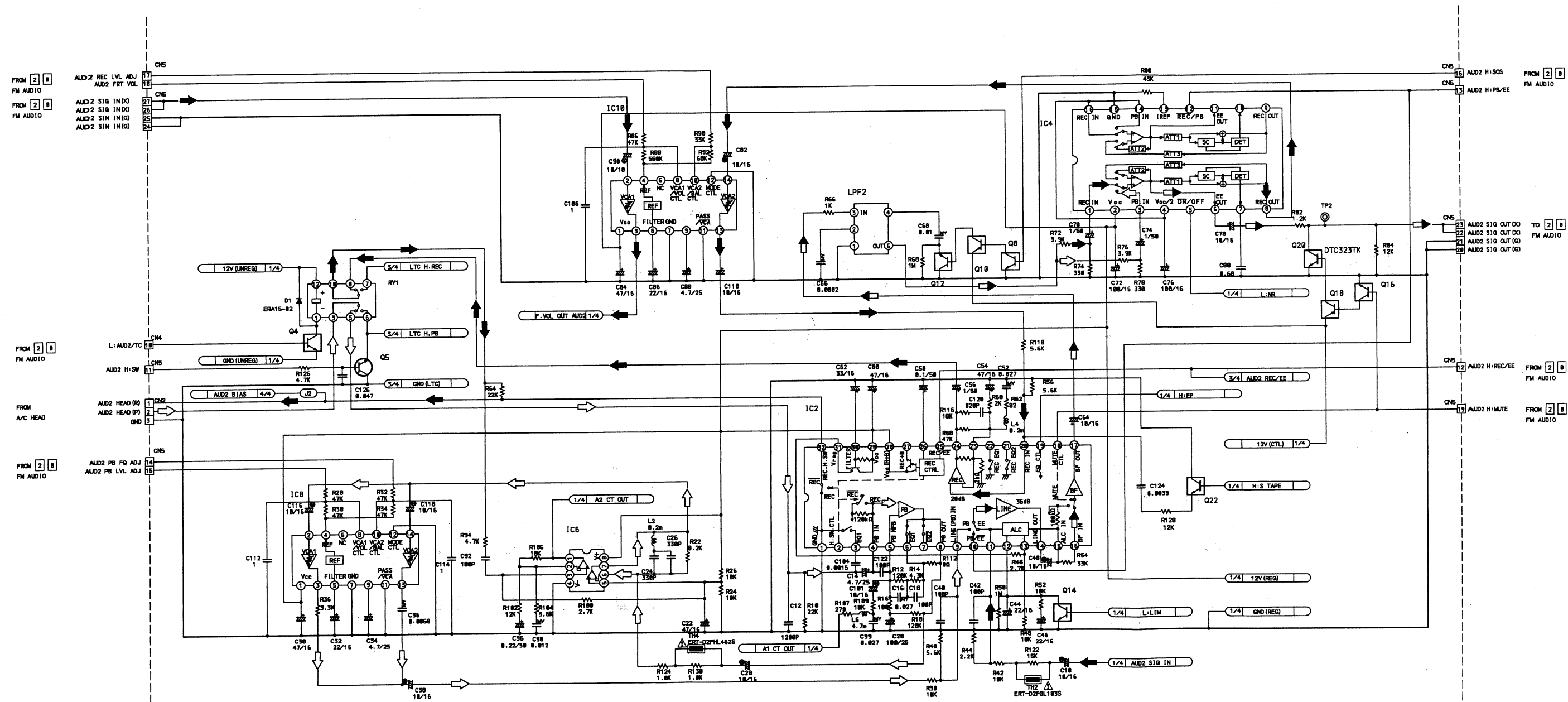
— DIAGRAM (2/2) —



1



— DIAGRAM (2/4) —



A

B

C

4-39

4-39

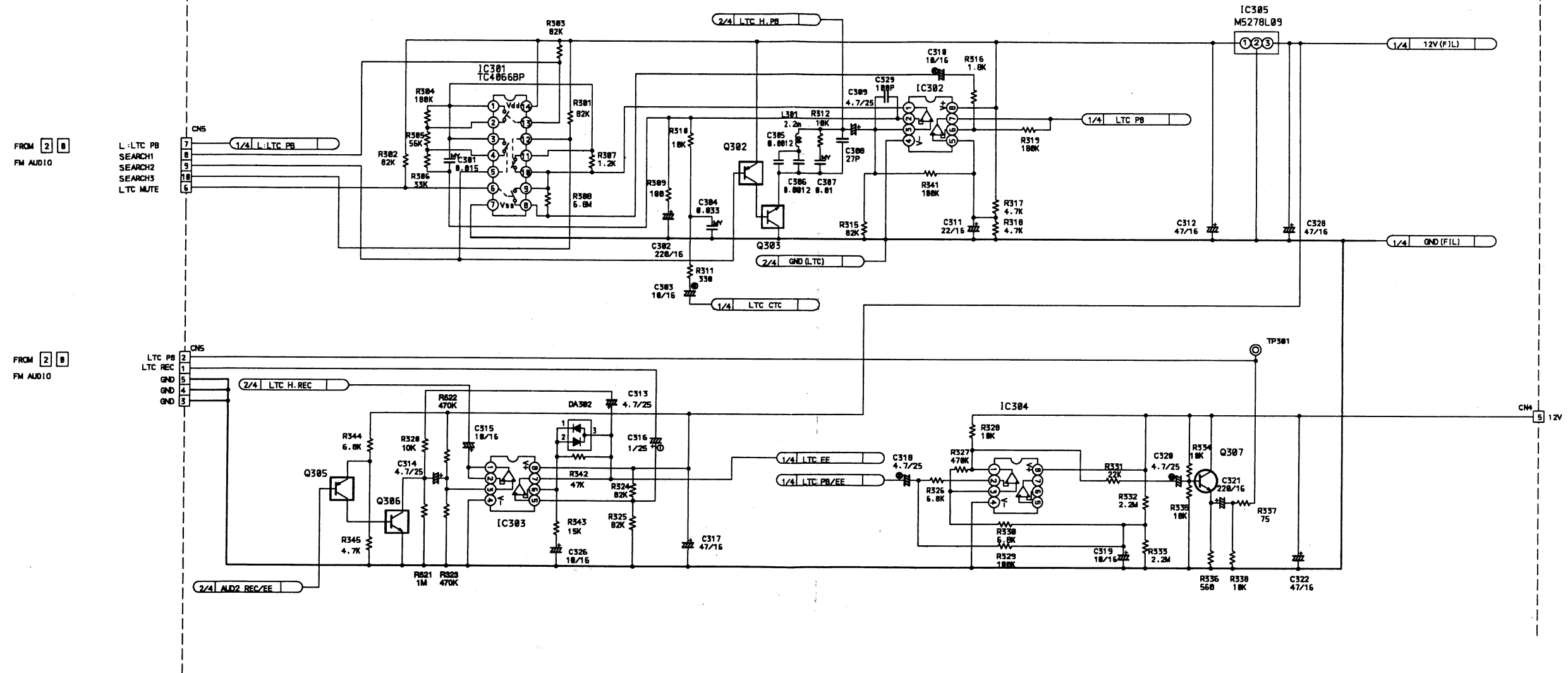
E

F

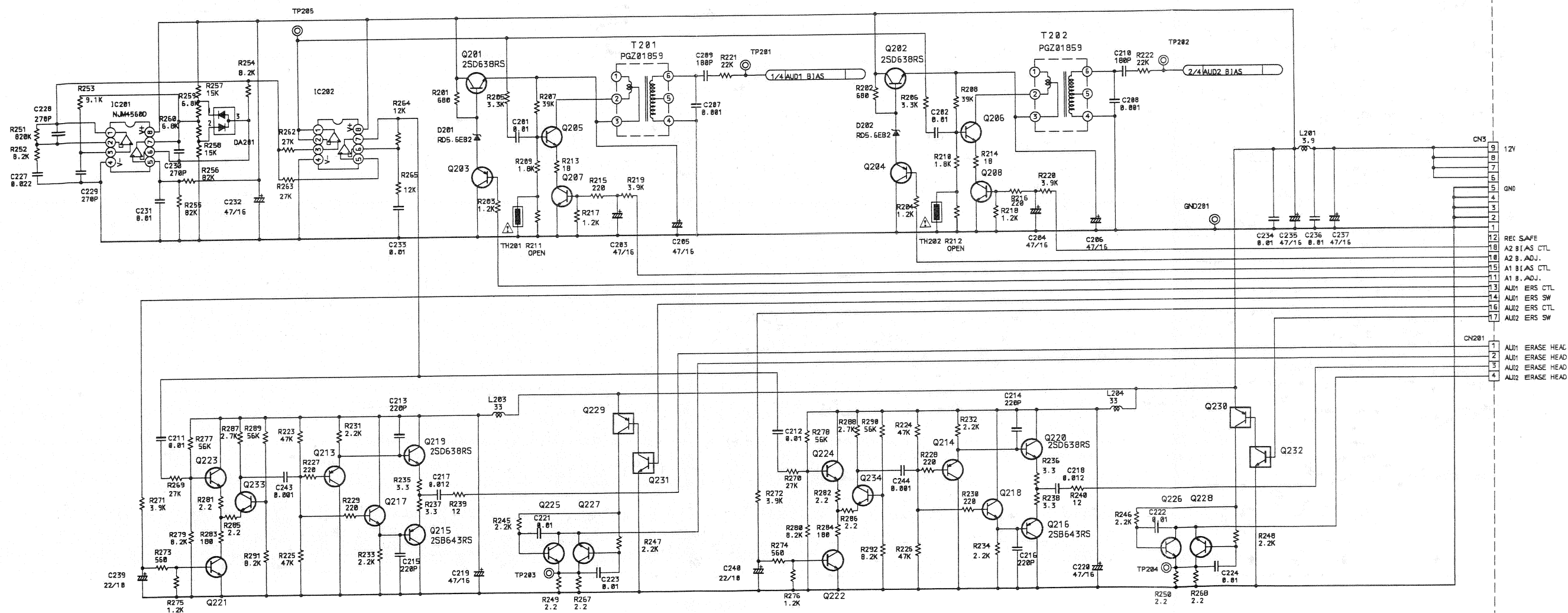
G

H

— DIAGRAM (3/4) —



— DIAGRAM (4/4) —



2 1 NORMAL AUDIO

FROM 2 1
FM AUDIO

TO AE HEAD
AU1 ERASE HEAD
AU2 ERASE HEAD
AU2 ERASE HEAD

5



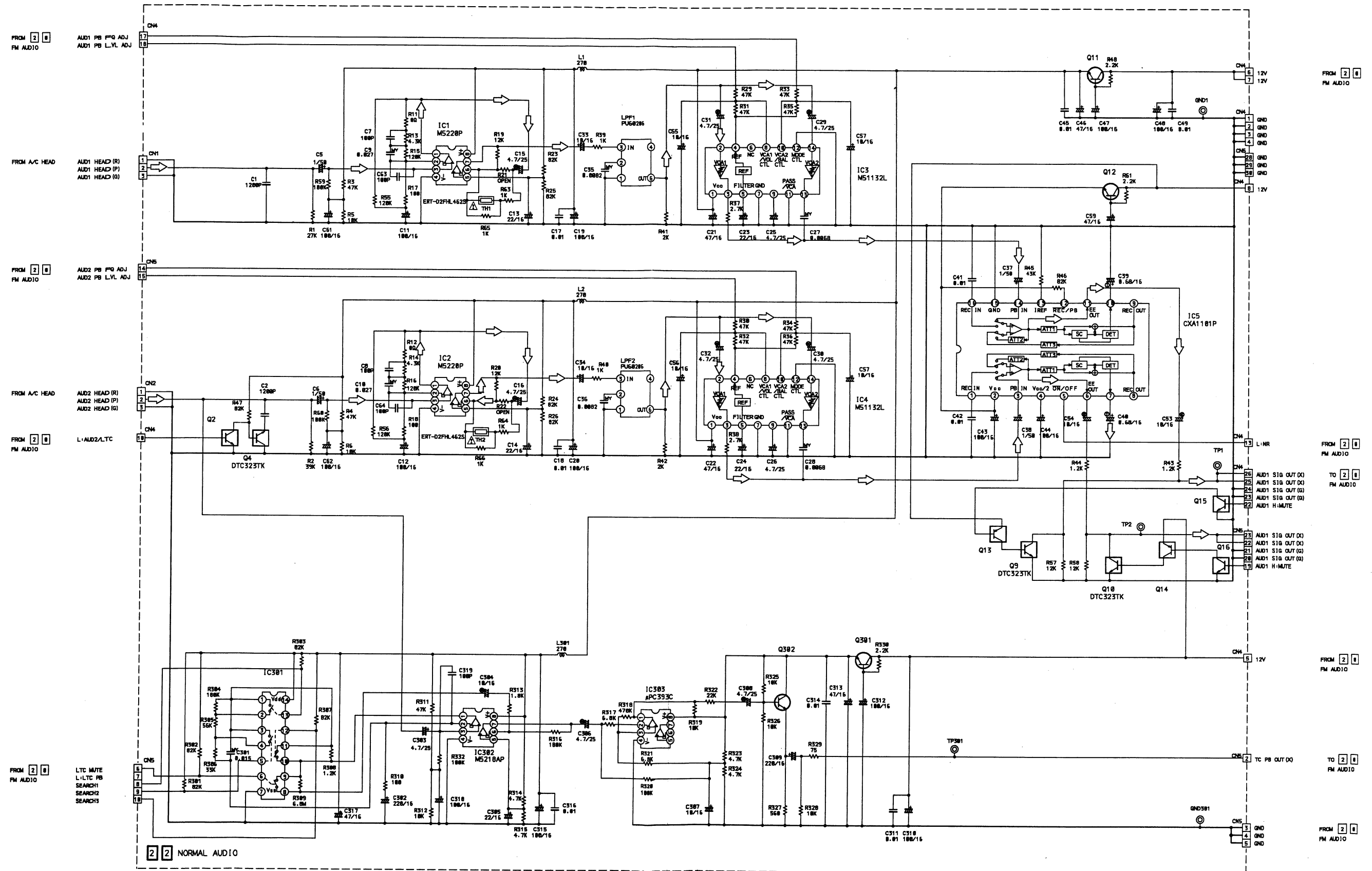
2

— DC Voltage —

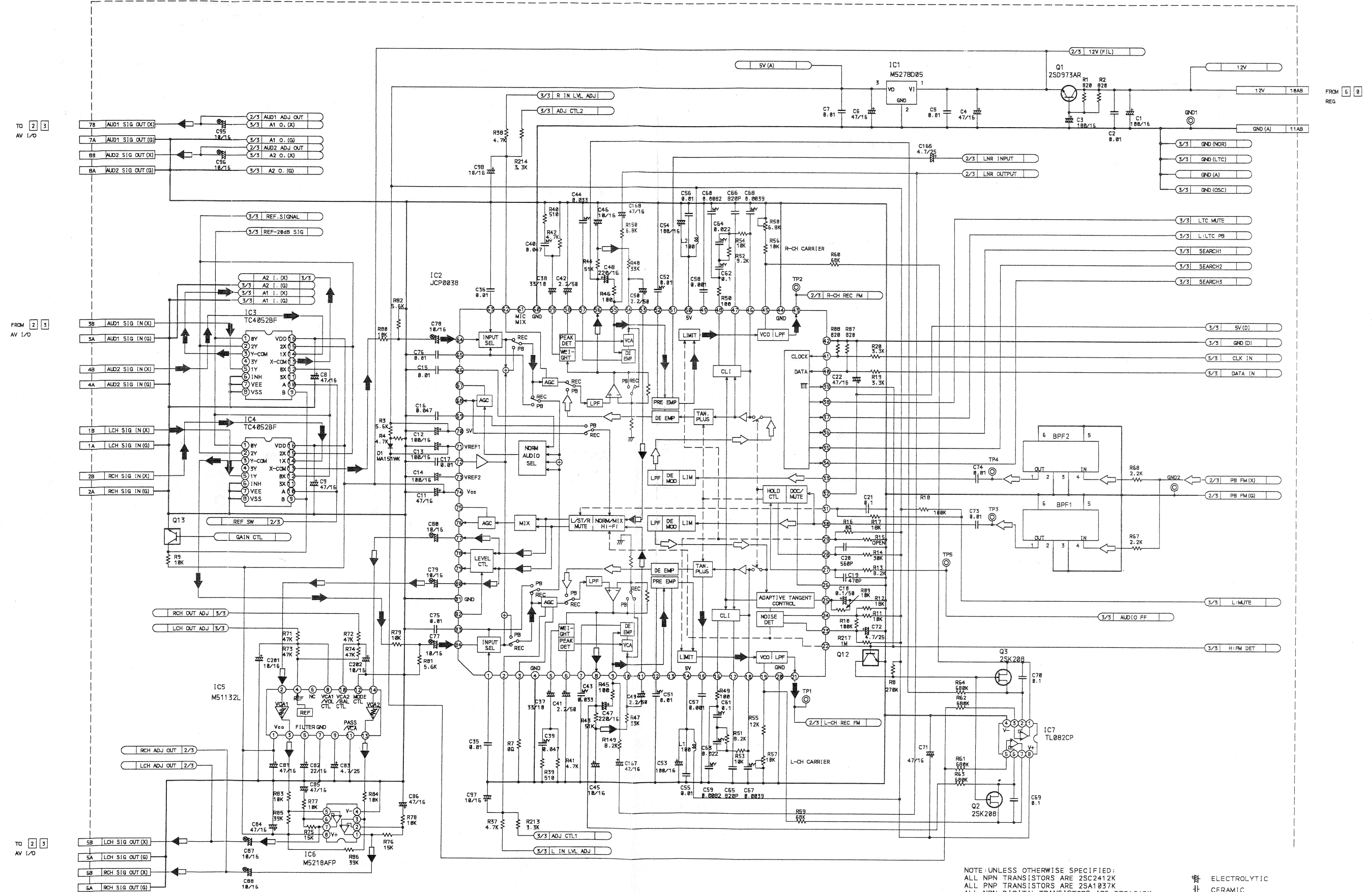
SYMBOL No.	REC	PB	SYMBOL No.	REC	PB	SYMBOL No.	REC	PB	SYMBOL No.	REC	PB
INTEGRATED CIRCUIT			IC4 11F	10.000	10.000	IC11 10D	4.1	4.1	Q4 15C	0.0	0.0
IC1 8D	10.000	10.000	IC5 6D	10.000	10.000	IC201 4F	10.000	10.000	Q5 14C	0.0	0.0
IC2 14E	10.000	10.000	IC6 12D	10.000	10.000	IC202 4E	10.000	10.000	Q6 7C	5.1	5.1
IC3 5F	10.000	10.000	IC7 5B	10.000	10.000	IC301 13C	10.000	10.000	Q7 7E	10.0	10.0
IC4 11F	10.000	10.000	IC8 11C	10.000	10.000	IC302 14C	10.000	10.000	Q8 12E	10.0	10.0
			IC9 5E	10.000	10.000	IC303 15A	10.000	10.000	Q9 6E	11.9	12.0
			IC10 10F	10.000	10.000	IC304 11A	0.1	0.1	Q10 12E	11.9	12.0
						TRANSISTOR			Q11 7F	0.5	0.0
						Q1 6A	10.9	10.9	Q12 12F	0.5	0.0
						Q2 10C	10.3	10.2	Q13 7C	0.0	0.0
						Q3 10C	10.0	10.0	Q14 13D	0.0	0.0
									Q15 6E	10.0	10.0
									Q16 11E	10.0	10.0
									Q17 6E	11.9	11.9
									Q18 11E	11.9	12.0
									Q19 6E	0.0	0.0
									Q20 11E	0.0	0.5
									Q21 7E	4.8	4.8
									Q22 14F	4.8	4.8
									Q201 2E	12.8	12.8
									Q202 2F	12.4	12.5
									Q203 3D	3.6	3.6

SYMBOL No.	REC	PB	SYMBOL No.	REC	PB	SYMBOL No.	REC	PB	SYMBOL No.	REC	PB
Q204 3F	2.8	2.8	Q305 15B	10.2	10.2	CONNECTOR			SUB BOARD		
Q205 2E	0.3	0.6	Q305 12A	5.1	0.0	CN1	1	0.0	Q1	1.4	1.5
Q206 2C	0.3	0.5	Q306 13A	0.0	1.1	CN2	1	0.0	Q2	1.5	1.5
Q207 2E	0.7	0.8	Q307 10A	15.8	15.8	CN3	1	0.0	Q3	0.7	0.0
Q208 3F	0.7	0.0							Q4	1.4	1.5
Q213 3C	6.0	6.0							Q5	1.5	1.6
Q214 3D	6.0	6.0							Q6	0.7	0.0
Q215 3B	6.1	6.0				CN4	1	0.0			
Q216 3D	6.1	6.0									
Q217 3B	6.0	6.0									
Q218 3C	6.1	6.0									
Q219 2C	6.2	6.0									
Q220 2D	6.1	6.0									
Q225 1B	0.8	0.8									
Q226 1D	0.8	0.0									
Q227 1B	0.8	0.0				CN5	1	0.0			
Q228 1D	0.8	0.4									
Q229 2C	0.1	12.0									
Q230 2C	0.1	12.0									
Q231 2B	5.1	0.0									
Q232 1C	5.1	0.0									
Q302 15B	10.3	10.2									

4.31 NORMAL AUDIO SCHEMATIC DIAGRAM (BR-S500E)



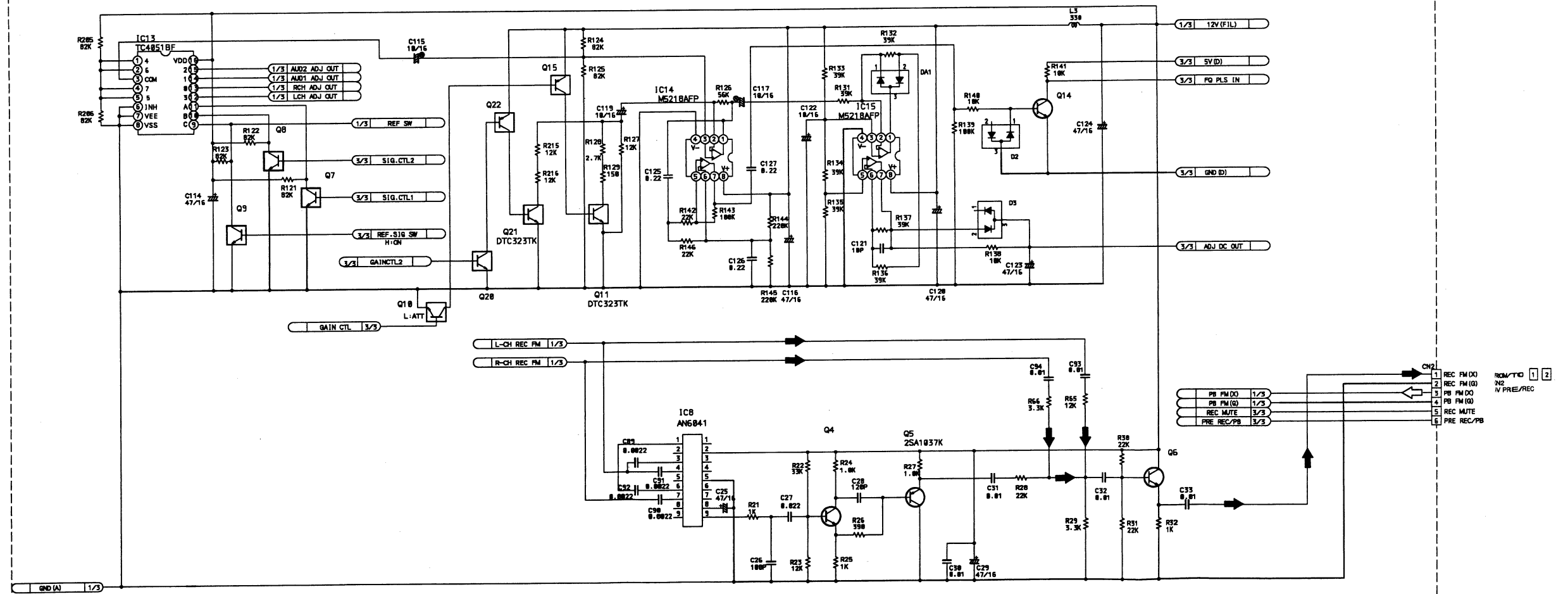
4.33 FM AUDIO SCHEMATIC DIAGRAM — DIAGRAM (1/3) —



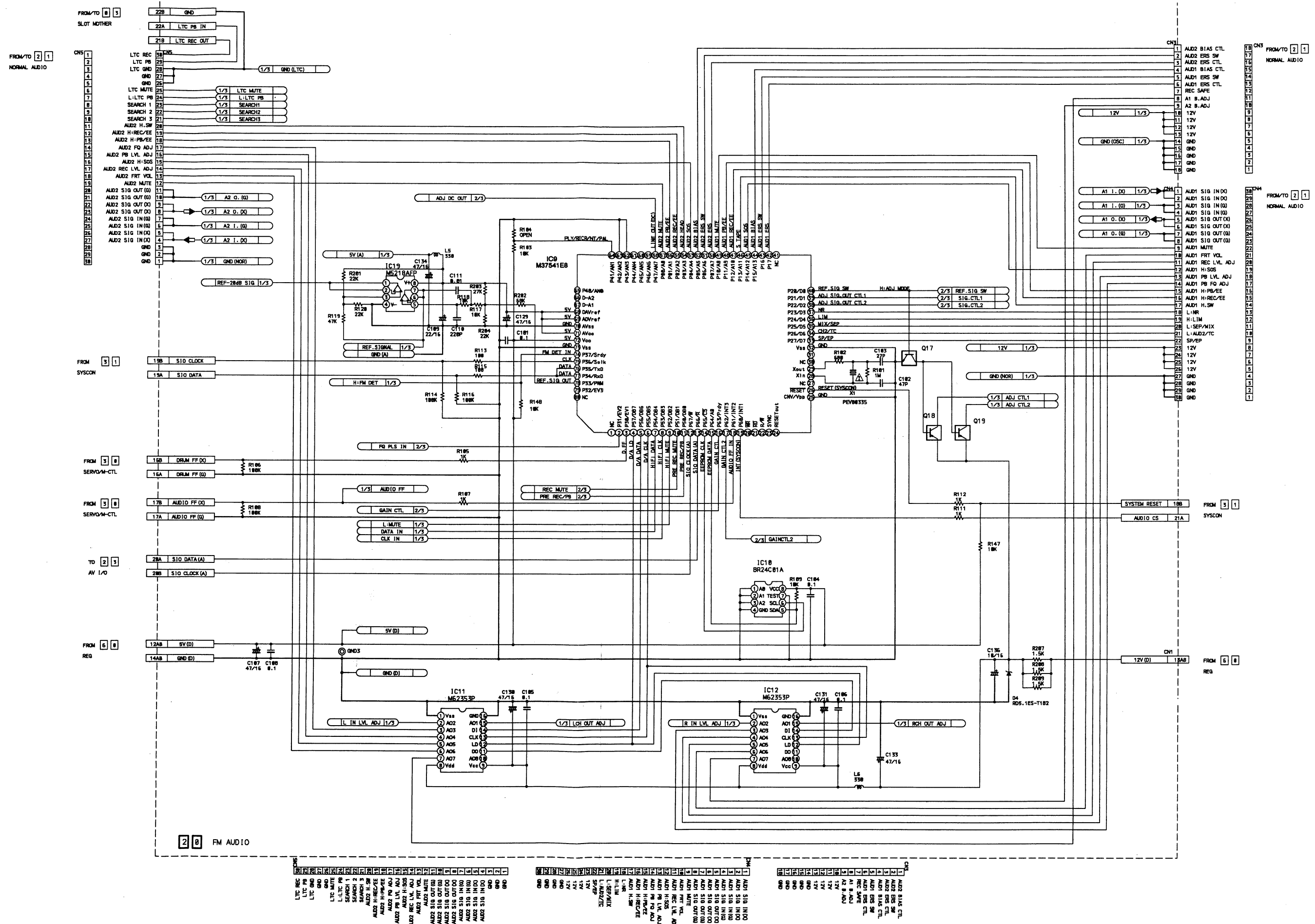
NOTE: UNLESS OTHERWISE SPECIFIED:
ALL NPN TRANSISTORS ARE 2SC2412K
ALL PNP TRANSISTORS ARE 2SA1037K
ALL NPN DIGITAL TRANSISTORS ARE DTC124EK
ALL PNP DIGITAL TRANSISTORS ARE DTA124EK
ALL DIODES ARE DA204K
ALL RESISTANCE VALUES ARE IN OHMS. (1/10W)
ALL INDUCTANCE VALUES ARE IN μ H.
ALL CAPACITANCE VALUES ARE IN μ F.

⏏ ELECTROLYTIC
⏏ CERAMIC
⏏ MYLAR

— DIAGRAM (2/3) —



— DIAGRAM (3/3) —



— DC Voltage (1/2) —

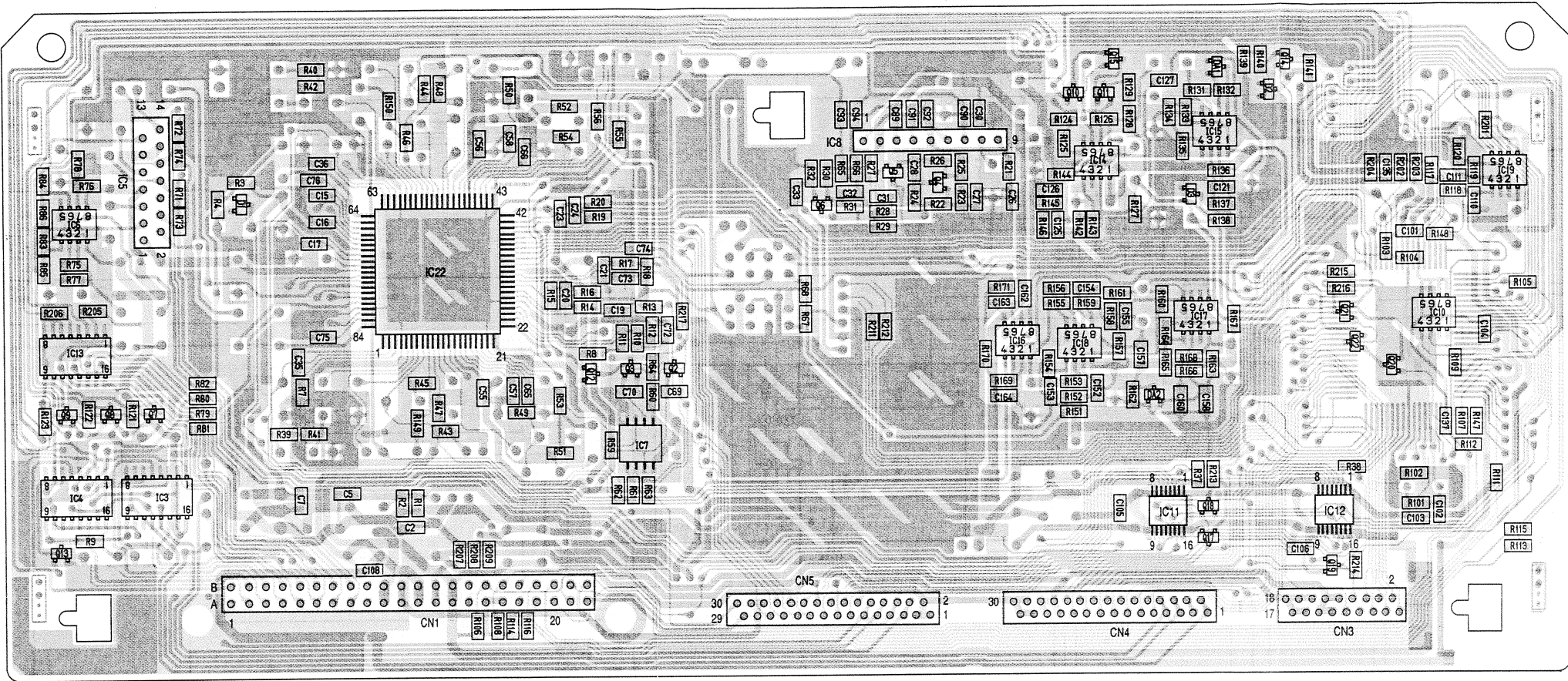
[illegible]

— DC Voltage (2/2) —

SYMBOL No.		REC	PB	SYMBOL No.	REC	PB	SYMBOL No.	REC	PB						
97 11D	B C E	0.0 10.5 0.0	0.0 10.6 0.0		15A 15B 16A 16B 17A 17B 18A 18B 19A 19B 20A 20B 21A 21B 22A 22B	0.0 4.6 0.0 0.0 0.0 0.0 0.0 5.1 4.1 4.9 0.0 0.0 0.0 3.4 0.0 0.0		17 18 19 20 21 22 23 24 25 26 27 28 29 30	1.8 0.0 5.1 4.4 10.3 0.0 10.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0						
98 11D	B C E	0.0 10.6 0.0	0.0 10.6 0.0		2 3 4 5 6	2.8 0.0 0.0 0.0 4.9		2.9 0.0 0.0 0.0 5.0							
99 12D	B C E	0.0 10.9 0.0	0.0 10.9 0.0		CN2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18		5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0						
910 4A	B C E	5.0 0.0 0.0	5.6 0.0 0.0			CN3		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0					
911 4A	B C E	10.8 0.0 0.0	10.8 0.0 0.0					CN4	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0				
912 8C	B C E	0.1 0.0 0.0	0.2 0.0 0.0						CN5	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0			
913 12E	B C E	5.0 0.0 0.0	5.1 0.0 0.0							CN6	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0		
914 3A	B C E	0.0 5.1 0.0	0.0 5.1 0.0								CN7	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
915 4A	B C E	0.0 10.8 10.9	0.0 10.8 10.9									CN8	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
917 3D	B C E	0.0 5.1 0.0	0.0 5.1 0.0										CN9	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5
918 3D	B C E	5.1 5.1 5.1	5.1 5.1 5.1	CN10	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18		5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5							0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
919 2E	B C E	5.1 2.7 5.1	5.1 2.7 5.1		CN11	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5							0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
920 2C	B C E	0.0 10.8 0.0	0.0 10.8 0.0			CN12	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5						0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
921	B C E	0.0 0.0 0.0	0.0 0.0 0.0				CN13	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5					0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
922	B C E	10.7 0.0 10.9	10.7 0.0 10.9					CN14	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5				0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
CONNECTOR									CN15	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5			0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
CN1	1A 1B 2A 2B 3A 3B 4A 4B 5A 5B 6A 6B 7A 7B 8A 8B 9A 9B 10A 10B 11A 11B 12A 12B 13A 13B 14A 14B	0.0 0.0	0.0 0.0												
										CN16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0		
				CN17							1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0		
					CN18						1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0		
						CN19					1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0		
							CN20				1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0		
								CN21			1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0		
									CN22		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0		
											CN23	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
										CN24		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
				CN25								1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
					CN26							1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
						CN27						1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
							CN28					1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
								CN29				1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
									CN30			1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
											CN31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
										CN32		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
				CN33								1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
					CN34							1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
						CN35						1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
							CN36					1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
								CN37				1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
									CN38			1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
											CN39	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
										CN40		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
				CN41								1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
					CN42							1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	5.0 5.5 5.5 5.5 5.5 5.5 5.		

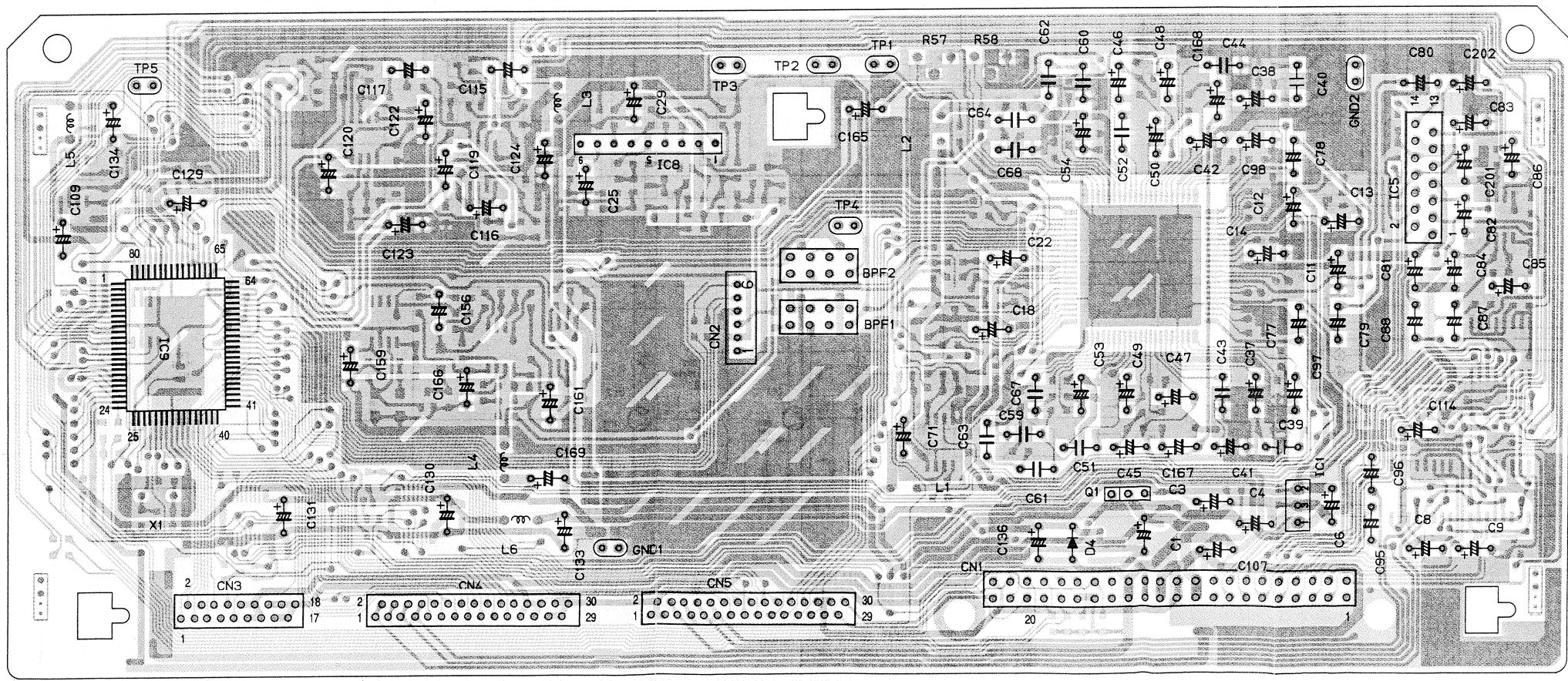
4.34 FM AUDIO CIRCUIT BOARD

— SOLDER side —



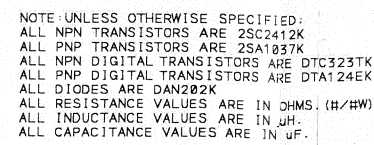
(PRK10171)

— PARTS Side —



(PRK10171)

1

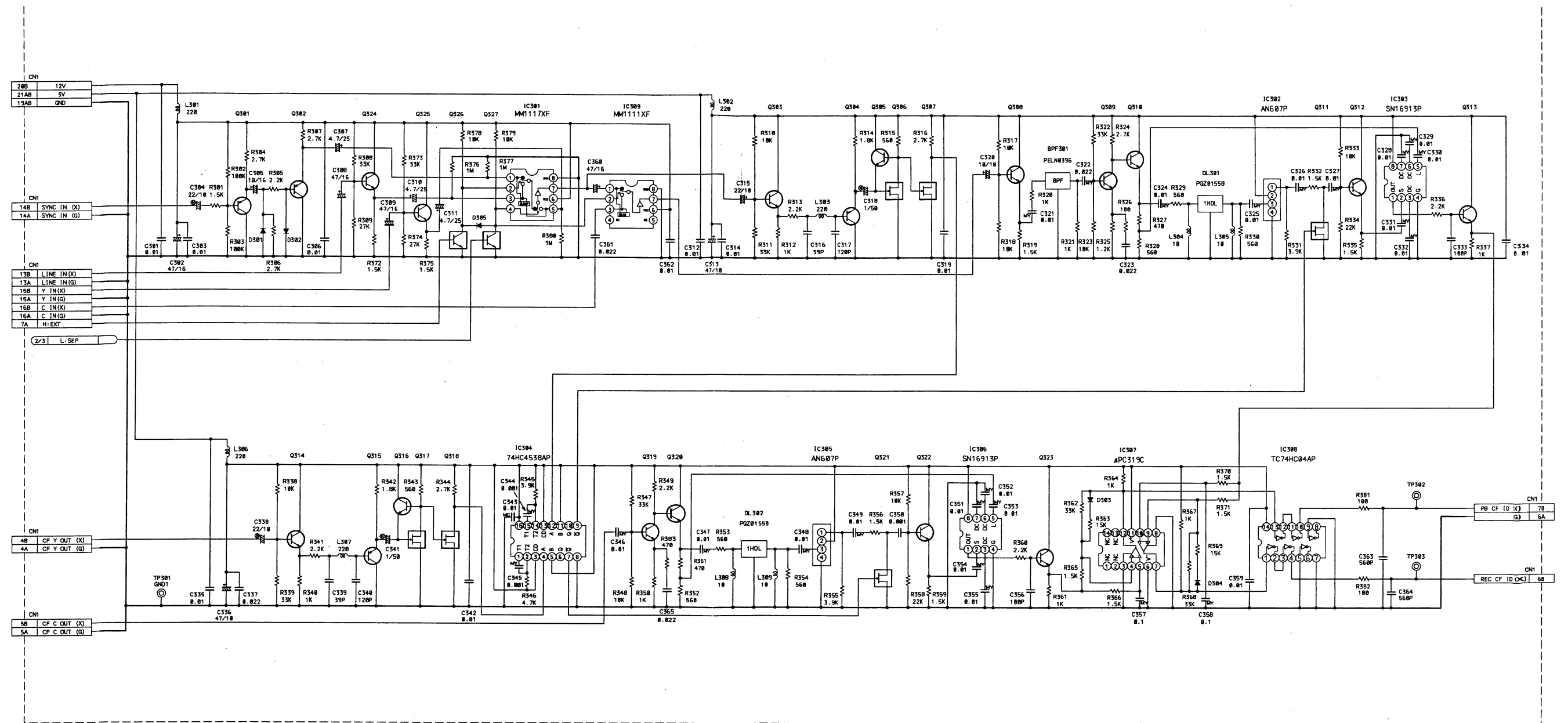


2 3 AV I/O



4

— DIAGRAM (3/3) —



A

B

C

4-54

4-54

E

F

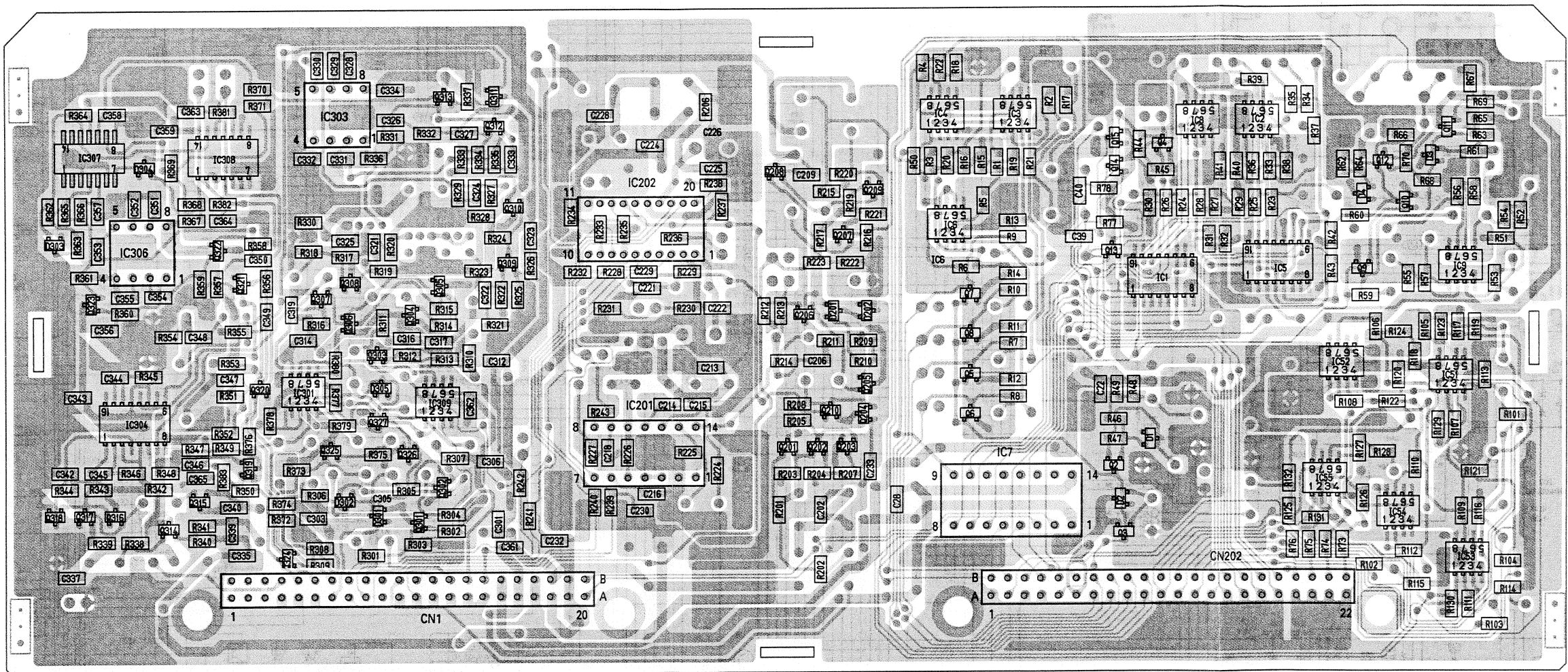
G

H

SYMBOL No.		REC	PB	SYMBOL No.		REC	PB	SYMBOL No.		REC	PB	SYMBOL No.		REC	PB								
INTEGRATED CIRCUIT																							
IC1 5E	1	11.2	11.2	IC8 4F	1	11.2	11.2	IC202 10E	14	11.2	11.2	IC309 12C	12	11.2	11.2								
IC2 4F	1	11.2	11.2	IC9 12E	1	11.2	11.2	IC301 13C	1	11.2	11.2	TRANSISTOR											
												IC51 2D	1	11.2	11.2	IC302 13E	1	11.2	11.2	Q1 5D	B	11.2	11.2
IC3 6F	1	11.2	11.2	IC52 3D	1	11.2	11.2	IC303 13F	1	11.2	11.2	Q2 5C	B	12.0	12.0								
IC4 7F	1	11.2	11.2	IC53 2B	1	11.2	11.2	IC304 15C	1	11.2	11.2	Q3 5B	B	12.8	13.0								
IC5 4E	1	11.2	11.2	IC54 2B	1	11.2	11.2	IC305 14D	1	11.2	11.2	Q4 5F	B	0.0	0.0								
IC6 7E	1	11.2	11.2	IC55 3C	1	11.2	11.2	IC306 15E	1	11.2	11.2	Q5 7D	B	0.0	0.0								
IC7 6B	1	11.2	11.2	IC201 10C	1	11.2	11.2	IC307 15F	1	11.2	11.2	Q6 7C	B	0.0	0.0								
IC202 10E	1	11.2	11.2	IC308 14F	1	11.2	11.2	Q7 7B	B	0.4	0.0	Q8 7D	B	0.3	0.0								
Q1 5D	B	11.2	11.2	Q2 5C	B	12.0	12.0	Q3 5B	B	12.8	13.0	Q4 5F	B	0.0	0.0								
Q2 5C	B	12.0	12.0	Q3 5B	B	12.8	13.0	Q4 5F	B	0.0	0.0	Q5 7D	B	0.0	0.0								
Q3 5B	B	12.8	13.0	Q4 5F	B	0.0	0.0	Q5 7D	B	0.0	0.0	Q6 7C	B	0.0	0.0								
Q4 5F	B	0.0	0.0	Q5 7D	B	0.0	0.0	Q6 7C	B	0.0	0.0	Q7 7B	B	0.4	0.0								
Q5 7D	B	0.0	0.0	Q6 7C	B	0.0	0.0	Q7 7B	B	0.4	0.0	Q8 7D	B	0.3	0.0								
Q6 7C	B	0.0	0.0	Q7 7B	B	0.4	0.0	Q8 7D	B	0.3	0.0	Q9 3E	B	0.0	0.0								
Q7 7B	B	0.4	0.0	Q8 7D	B	0.3	0.0	Q9 3E	B	0.0	0.0	Q10 2E	B	0.0	0.0								
Q8 7D	B	0.3	0.0	Q9 3E	B	0.0	0.0	Q10 2E	B	0.0	0.0	Q11 2F	B	0.5	0.5								
Q9 3E	B	0.0	0.0	Q10 2E	B	0.0	0.0	Q11 2F	B	0.5	0.5	Q12 3F	B	0.5	0.5								
Q10 2E	B																						

— DC Voltage (2/2) —

SYMBOL No.		REC	PB	SYMBOL No.		REC	PB	SYMBOL No.	REC	PB	
Q206 8D	B C E	3.1	3.1	Q319 14C	B C E	1.8	1.8	CN2	1A	0.0	0.0
		11.8	11.8			2.6	2.6		1B	0.0	0.0
		2.7	2.8			1.1	1.1		2A	1.1	1.2
Q207 8E	B C E	5.2	5.7	Q320 14D	B C E	2.6	2.6		2B	0.0	0.0
		11.8	11.8			5.1	5.1		3A	0.0	0.0
		5.2	5.2			2.3	2.3		3B	1.8	1.8
Q208 9F	B C E	5.2	5.2	Q321 14E	B C E	4.8	4.8		4A	0.0	0.0
		9.4	9.4			0.0	0.0		4B	0.0	0.0
		4.3	4.3			0.0	0.0		5A	0.0	0.0
Q209 8F	B C E	1.7	1.7	Q322 14E	B C E	3.5	3.5		5B	0.0	0.0
		4.3	4.3			5.1	5.1		6A	13.0	13.0
		1.0	1.0			2.9	2.9		6B	0.0	0.0
Q210 8C	B C E	0.0	0.0	Q323 15D	B C E	4.3	4.3		7A	0.0	0.0
		4.0	4.0			5.1	5.1		7B	0.0	0.0
		0.0	0.0			3.6	3.6		8A	0.0	0.0
Q301 12B	B C E	6.4	6.4	Q324 14B	B C E	5.3	5.3		8B	0.0	0.0
		0.0	0.0			11.9	11.9		9A	0.0	0.0
		7.0	7.0			4.7	4.7		9B	0.0	0.0
Q302 12C	B C E	0.1	0.1	Q325 13C	B C E	5.3	5.3		10A	0.0	0.0
		0.0	0.0			11.9	11.9		10B	0.0	0.0
		0.8	0.8			4.7	4.7		11A	0.0	0.0
Q303 13D	B C E	3.9	3.9	Q326 12C	B C E	0.0	0.0		11B	0.0	0.0
		5.2	5.2			7.6	7.6		12A	0.0	0.0
		3.3	3.3			0.0	0.0	12B	0.0	0.0	
Q304 12D	B C E	3.3	3.3	Q327 13C	B C E	5.0	5.0	13A	0.0	0.0	
		0.0	0.0			0.0	0.0	13B	0.0	0.0	
		3.9	3.9			0.0	0.0	14A	0.0	0.0	
Q305 12E	B C E	0.9	0.9	CONNECTOR				14B	0.0	0.0	
		5.2	5.2	CN1	1A	0.0	0.0	15A	0.0	0.0	
		3.4	3.4		1B	0.0	0.0	15B	0.0	0.0	
Q306 13D	B C E	3.4	3.4		2A	0.0	0.0	16A	0.0	0.0	
		0.0	0.0		2B	0.0	0.0	16B	0.0	0.0	
		0.0	0.0		3A	0.0	0.0	17A	0.0	0.0	
Q307 13D	B C E	0.9	0.9		3B	0.0	0.0	17B	0.0	0.0	
		4.7	4.7		4A	0.0	0.0	18A	0.0	0.0	
		0.0	0.0		4B	0.0	0.0	18B	0.0	0.0	
Q308 13E	B C E	2.6	2.6		5A	0.0	0.0	19A	0.0	0.0	
		5.2	5.2		5B	3.4	3.4	19B	0.0	0.0	
		2.1	2.1		6A	0.0	0.0	20A	0.0	0.0	
Q309 11E	B C E	1.2	1.2		6B	0.0	0.0	20B	0.0	0.0	
		3.8	3.8		7A	0.0	0.0	21A	0.0	0.0	
		0.6	0.6		7B	0.0	0.0	21B	0.0	0.0	
Q310 11E	B C E	3.8	3.8		8A	5.1	5.1	22A	0.0	0.0	
		5.2	5.2		8B	4.7	4.7	22B	5.3	5.3	
		3.4	3.4		9A	0.0	0.0				
Q311 11F	B C E	4.8	4.8		9B	0.0	0.0				
		0.0	0.0		10A	0.0	0.0				
		0.0	0.0		10B	0.0	0.0				
Q312 11F	B C E	3.5	3.5		11A	0.0	0.0				
		5.2	5.2		11B	0.0	0.0				
		2.9	2.9		12A	0.0	0.0				
Q313 12F	B C E	4.3	4.3	12B	0.0	0.0					
		5.2	5.2	13A	0.0	0.0					
		3.7	3.7	13B	0.0	0.0					
Q314 15B	B C E	3.9	3.9	14A	0.0	0.0					
		5.2	5.2	14B	0.0	0.0					
		3.2	3.2	15A	0.0	0.0					
Q315 14B	B C E	3.2	3.2	15B	0.0	0.0					
		0.0	0.0	16A	0.0	0.0					
		3.9	3.9	16B	0.0	0.0					
Q316 15B	B C E	0.8	0.8	17A	0.0	0.0					
		5.1	5.1	17B	0.0	0.0					
		3.4	3.4	18A	0.0	0.0					
Q317 16B	B C E	3.4	3.4	18B	5.1	5.1					
		0.0	0.0	19A	0.0	0.0					
		0.0	0.0	19B	0.0	0.0					
Q318 16B	B C E	0.8	0.8	20A	0.0	0.0					
		4.7	4.7	20B	12.0	12.0					
		0.0	0.0	21A	0.0	0.0					
				21B	0.0	0.0					
				22A	0.0	0.0					
				22B	0.0	0.0					

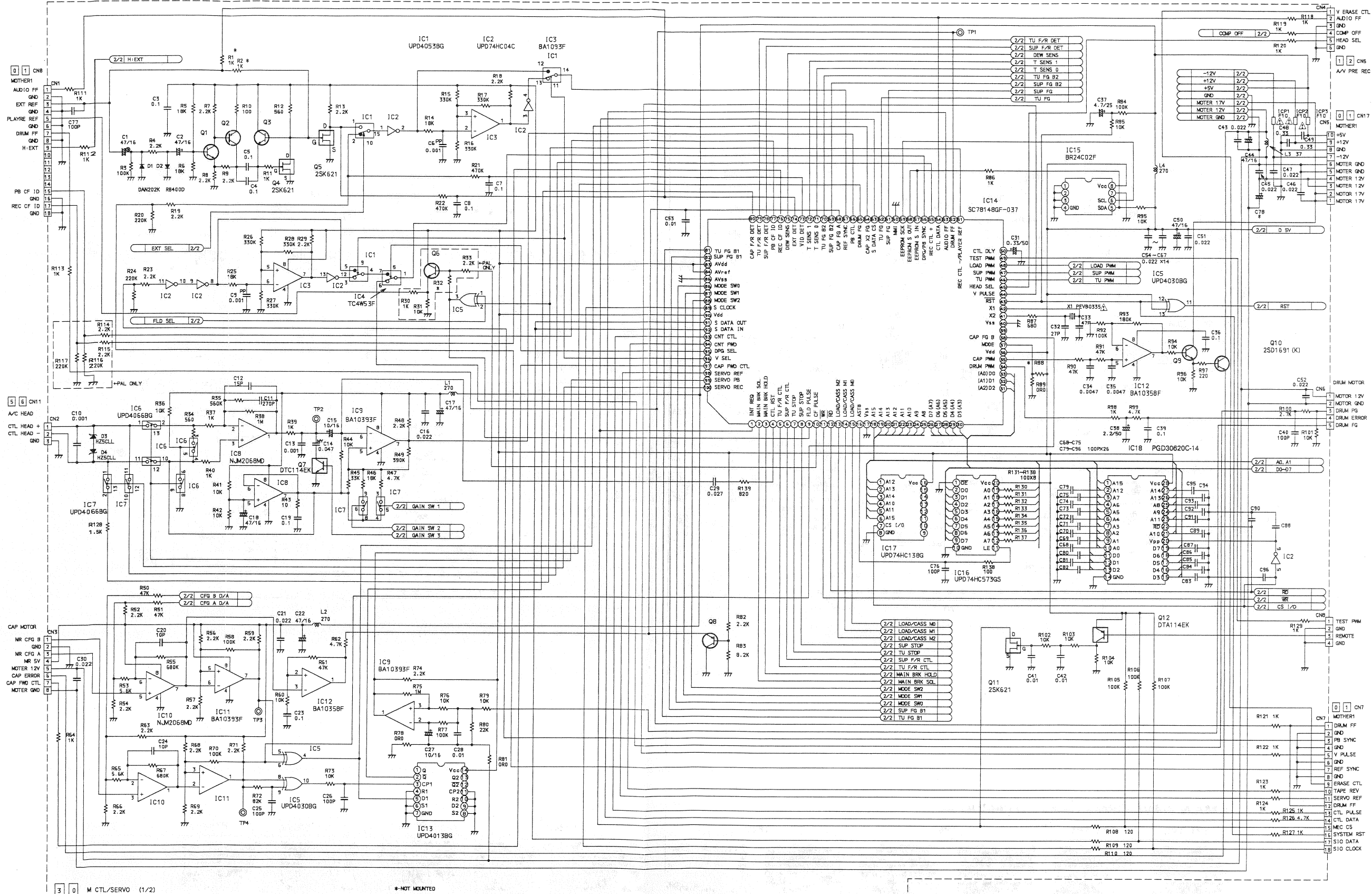


(PRK20267-01-01)

— MAIN WAVEFORMS OF AV I/O CIRCUIT —

TP1, TP2	TP3, TP4	TP5		TP201		TP202		TP204	TP302	TP303
[PB] 1.1 Vp-p — MBAFE-2 —	[PB] 0.8 Vp-p — MBAE —	[PB] 1.1 Vp-p — MBAFE-2 —	[PB] 0.8 Vp-p — MBAE —	[REC] 2.0 Vp-p — H-rate —	[REC] 2.0 Vp-p — V-rate —	[REC] 1.0 Vp-p — H-rate —	[REC] 1.0 Vp-p — V-rate —	[REC] 4.4 V/15.625 kHz — S-VHS —	[PB] 5.1 Vp-p/7.8 kHz — MHVE-2H —	[REC] 4.8 Vp-p/7.8 kHz — S-VHS —

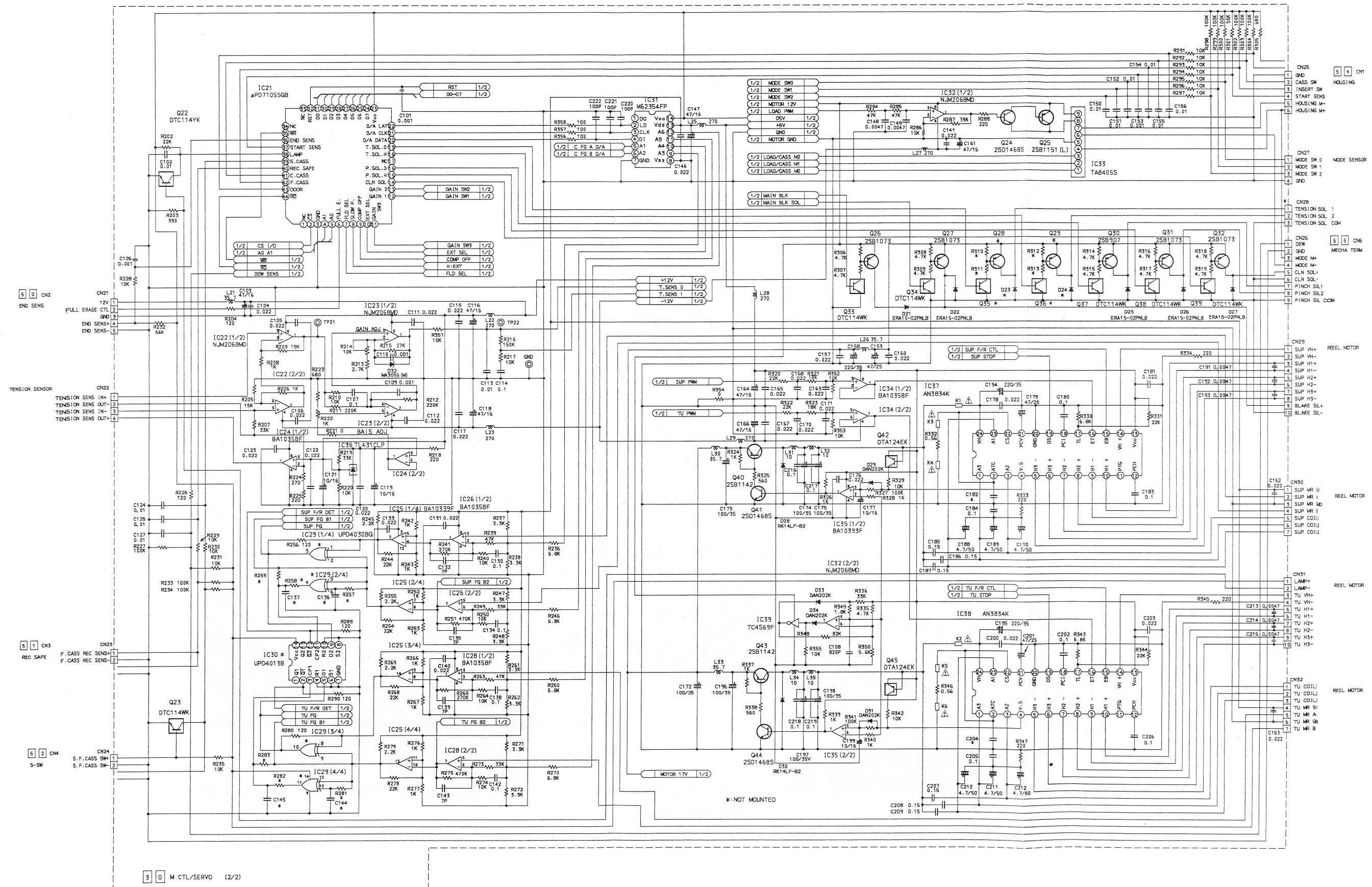
4.37 M-CTL/SERVO SCHEMATIC DIAGRAM
— DIAGRAM (1/2) —



NOTE: UNLESS OTHERWISE SPECIFIED:
ALL NPN TRANSISTORS ARE 2SC2412K
ALL PNP TRANSISTORS ARE 2SA1037K
ALL RESISTANCE VALUES ARE IN OHMS. (1/10W)
ALL INDUCTANCE VALUES ARE IN μ H.

ALL CAPACITANCE VALUES ARE IN μ F.
ELECTROLYTIC
NON-POLARIZED
CERAMIC
MYLAR
POLYPROPYLENE MYLAR

— DIAGRAM (2/2) —



A

B

C

4-59

4-59

E

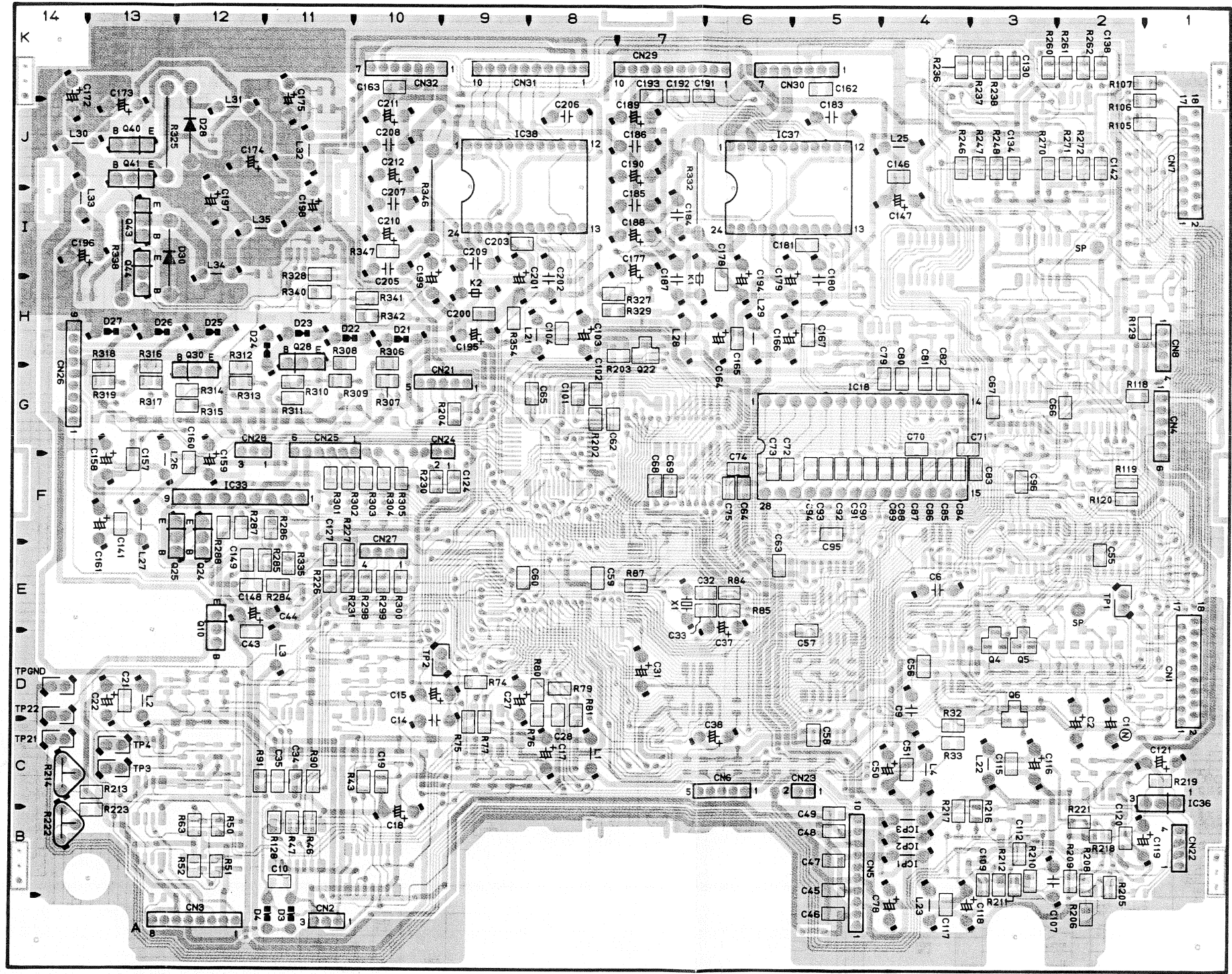
F

G

H

4.38 M-CTL/SERVO CIRCUIT BOARD

— SOLDER Side —



(PRK10135-01-01)

— DC Voltage (1/4) —

SYMBOL	No.	REC	PB
INTEGRATED CIRCUIT			
IC1	1	0.10	0.10
IC2	1	4.04	4.04
IC3	1	4.84	4.84
IC4	1	0.00	0.00
IC5	1	0.00	0.00
IC6	1	0.00	0.00
IC7	1	2.54	2.54

— DC Voltage (2/4) —

SYMBOL No.		REC	PB	SYMBOL No.	REC	PB	SYMBOL No.	REC	PB	SYMBOL No.	REC	PB
	109 1432 1432	24 544 544	26 000 000		24 25 26		IC16	1 20 20	00 00 00	IC21	24 25 26	00 00 00
IC8	1 88 88	2 512 512	2 512 512		27 28 29			10 10 10	00 00 00		27 28 29	00 00 00
IC9	1 88 88	2 512 512	2 512 512		30 31 32		IC17	1 20 20	00 00 00	IC22	1 3 3	6 3 3
IC10	1 88 88	2 512 512	2 512 512		33 34 35			10 10 10	00 00 00	IC23	1 8 8	0 7 7
IC11	1 88 88	2 512 512	2 512 512		36 37 38		IC18	1 20 20	00 00 00	IC24	1 8 8	8 7 7
IC12	1 88 88	2 512 512	2 512 512		39 40 41			10 10 10	00 00 00	IC25	1 8 8	0 7 7
IC13	1 88 88	2 512 512	2 512 512		42 43 44		IC21	1 20 20	00 00 00	IC26	1 8 8	6 7 7
IC14	1 88 88	2 512 512	2 512 512		45 46 47			10 10 10	00 00 00	IC28	1 8 8	2 7 7
	109 1432 1432	24 544 544	26 000 000	IC15	1 88 88	2 512 512		10 10 10	00 00 00	IC31	1 88 88	00 00 00

— DC Voltage (3/4) —

SYMBOL No.		REC	PB	SYMBOL No.		REC	PB	SYMBOL No.		REC	PB	SYMBOL No.		REC	PB
	9 10 11 12 13 14	2 3 4 5 6 7 8 9	5 6 7 8 9		18 19 20 21 22 23 24	2 3 4 5 6 7 8 9	5 6 7 8 9	Q30	B C E	18.8 18.9 18.9	18.8 18.9 18.9	CN4	1 2 3 4 5 6	5.1 5.4 4.4 4.4 4.4 4.0	0.4 0.4 0.4 0.4 0.4 0.0
IC32	1 2 3 4 5 6 7 8	0 1 2 3 4 5 6 7 8	1 0 0 0 0 0 0 0	IC39	1 2 3 4 5	0 1 2 3 4 5	0 0 0 0 0 0 0 0	Q31	B C E	18.2 18.9 18.9	18.2 18.9 18.9	CN5	1 2 3 4 5 6 7 8 9 10	19.0 19.0 13.5 13.5 13.5 12.0 1	

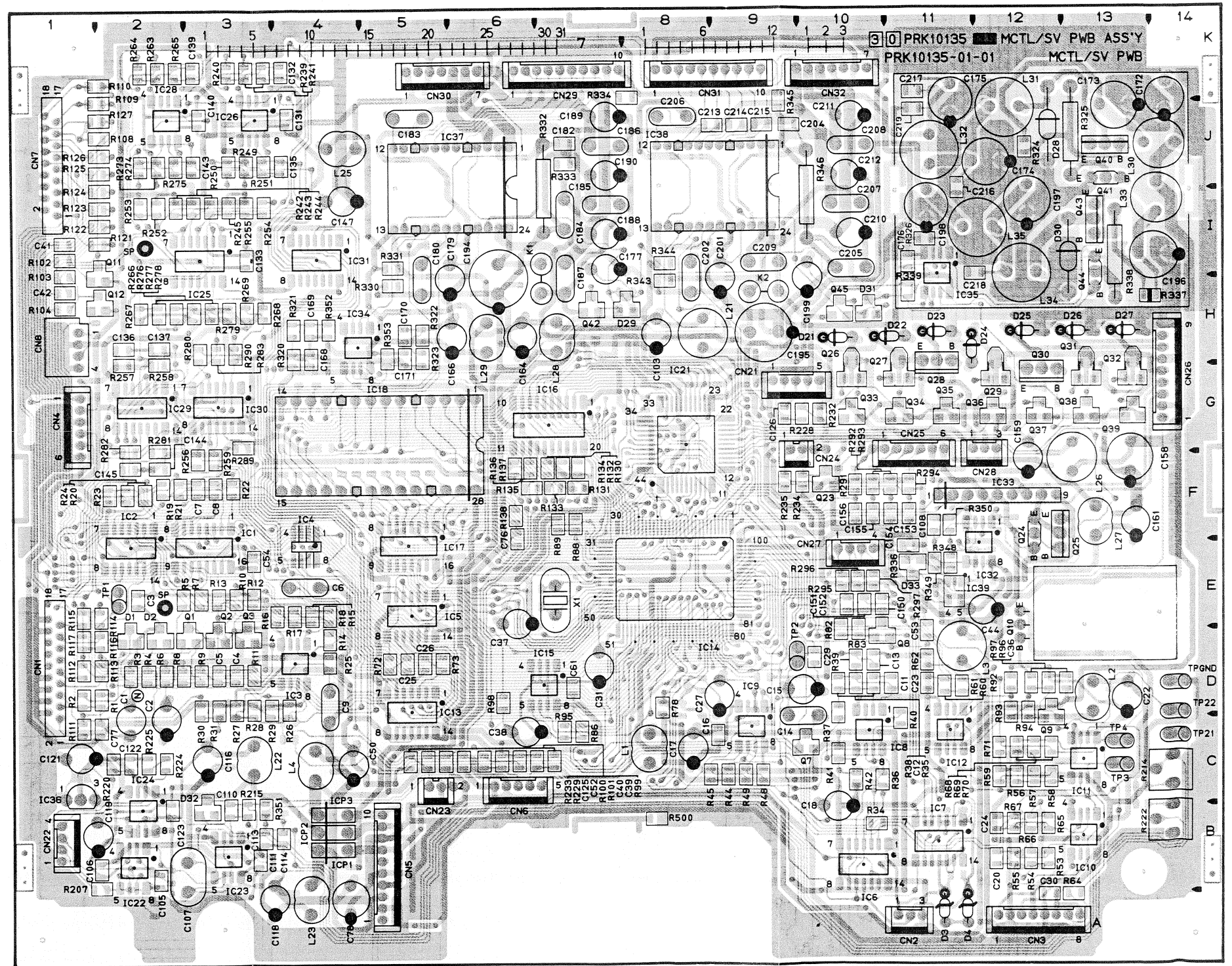
— DC Voltage (4/4) —

SYMBOL	N	REC	PB
	9	12.6	12.6
	10	0.0	0.0
CN30	1	5.0	5.0
	2	5.0	5.0
	3	5.0	5.0
	4	5.0	5.0
CN31	1	4.9	4.9
	2	4.9	4.9
	3	4.9	4.9
	4	4.9	4.9
CN32	1	5.0	5.0
	2	5.0	5.0
	3	5.0	5.0
	4	5.0	5.0

— MAIN WAVEFORMS OF M-CTL/R-SERVO CIRCUIT —

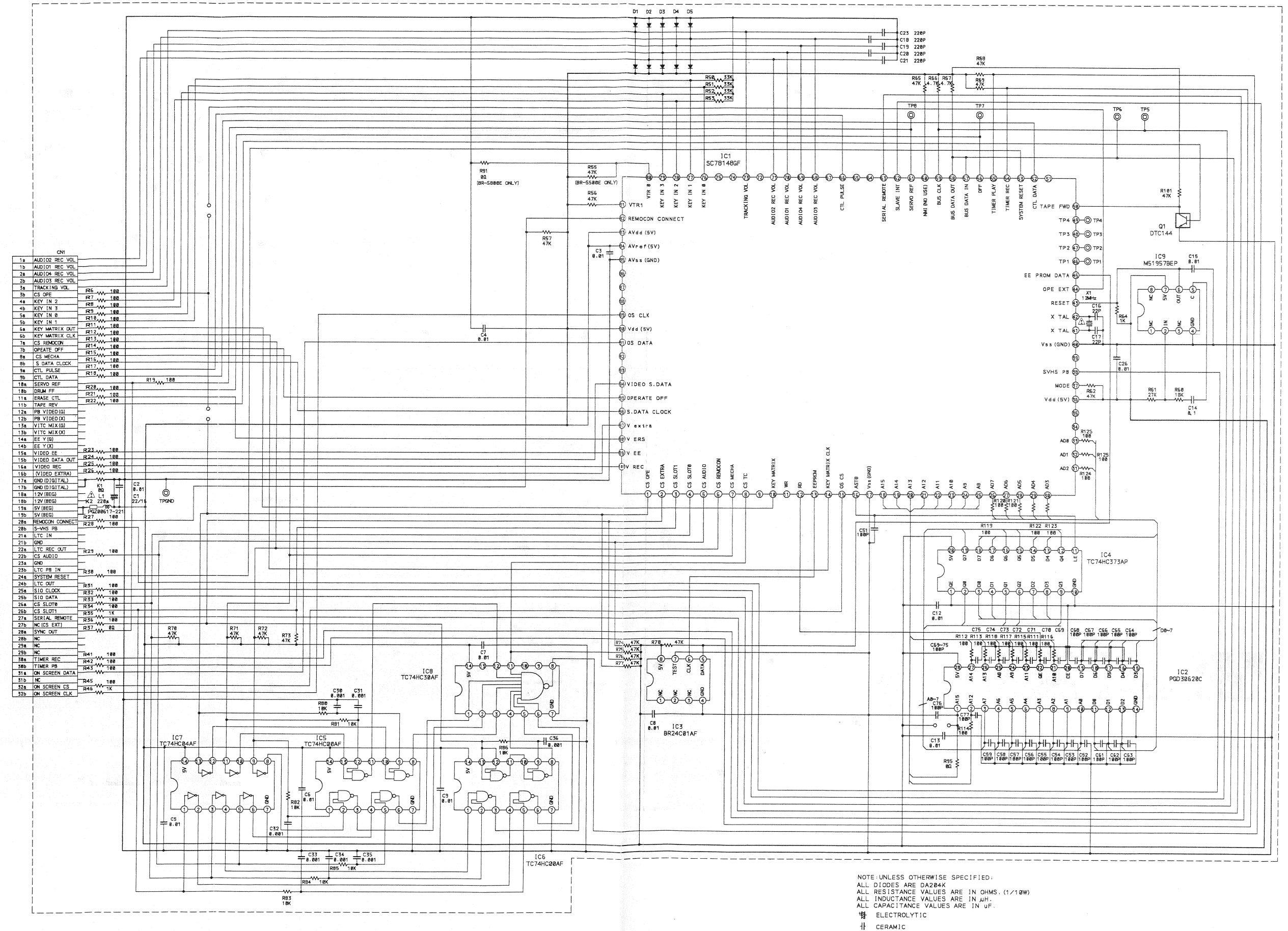
TP1	TP2	TP3 & TP4
4.9 Vp-p (25 Hz)	[PB] 2.1 Vp-p (25 HZ)	UPPER : TP4 LOWER : TP3

— PARTS Side —

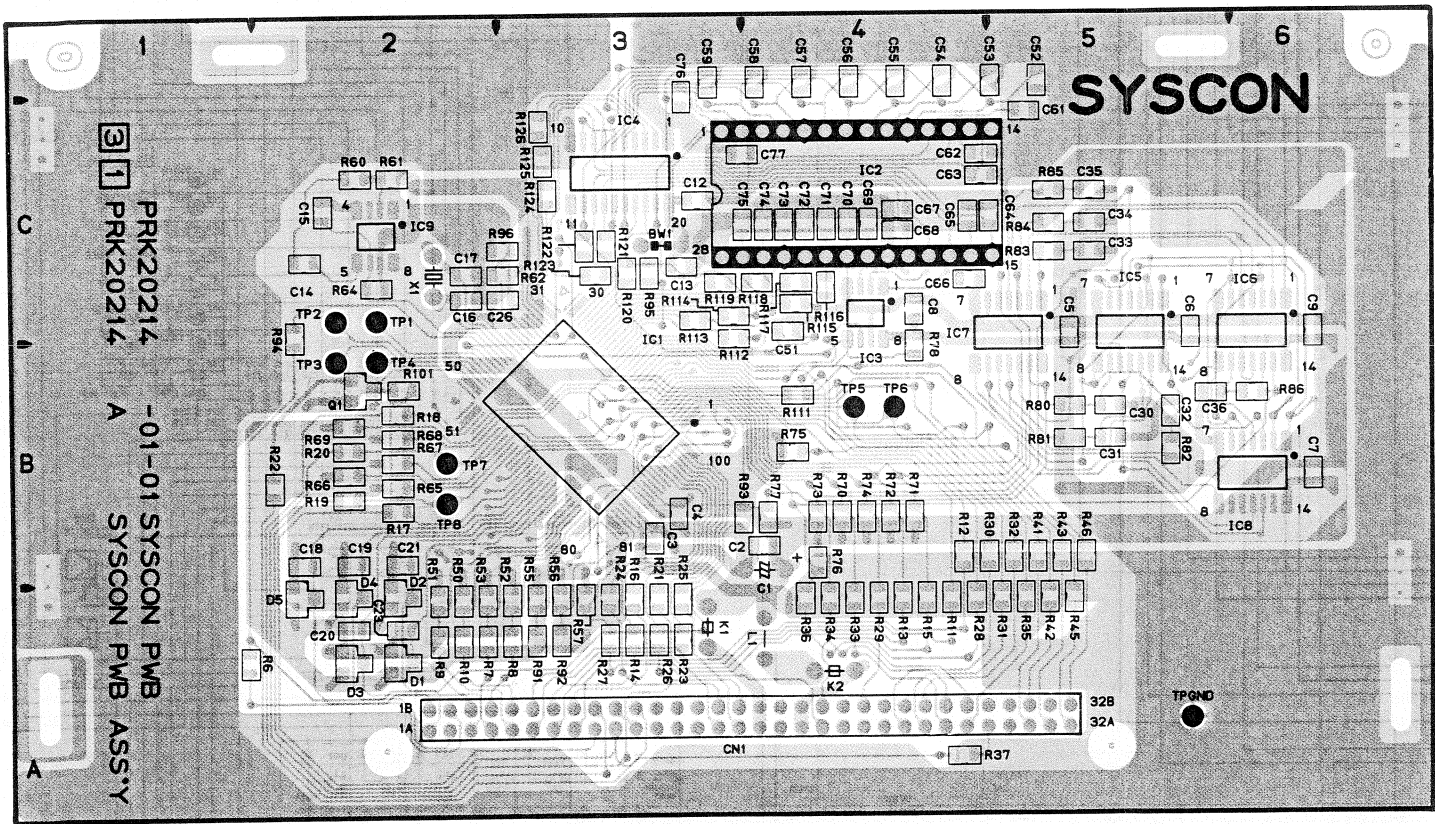


(PRK10135-01-01)

4.39 SYSCON SCHEMATIC DIAGRAM



4.40 SYSCON CIRCUIT BOARD
— SOLDER Side —

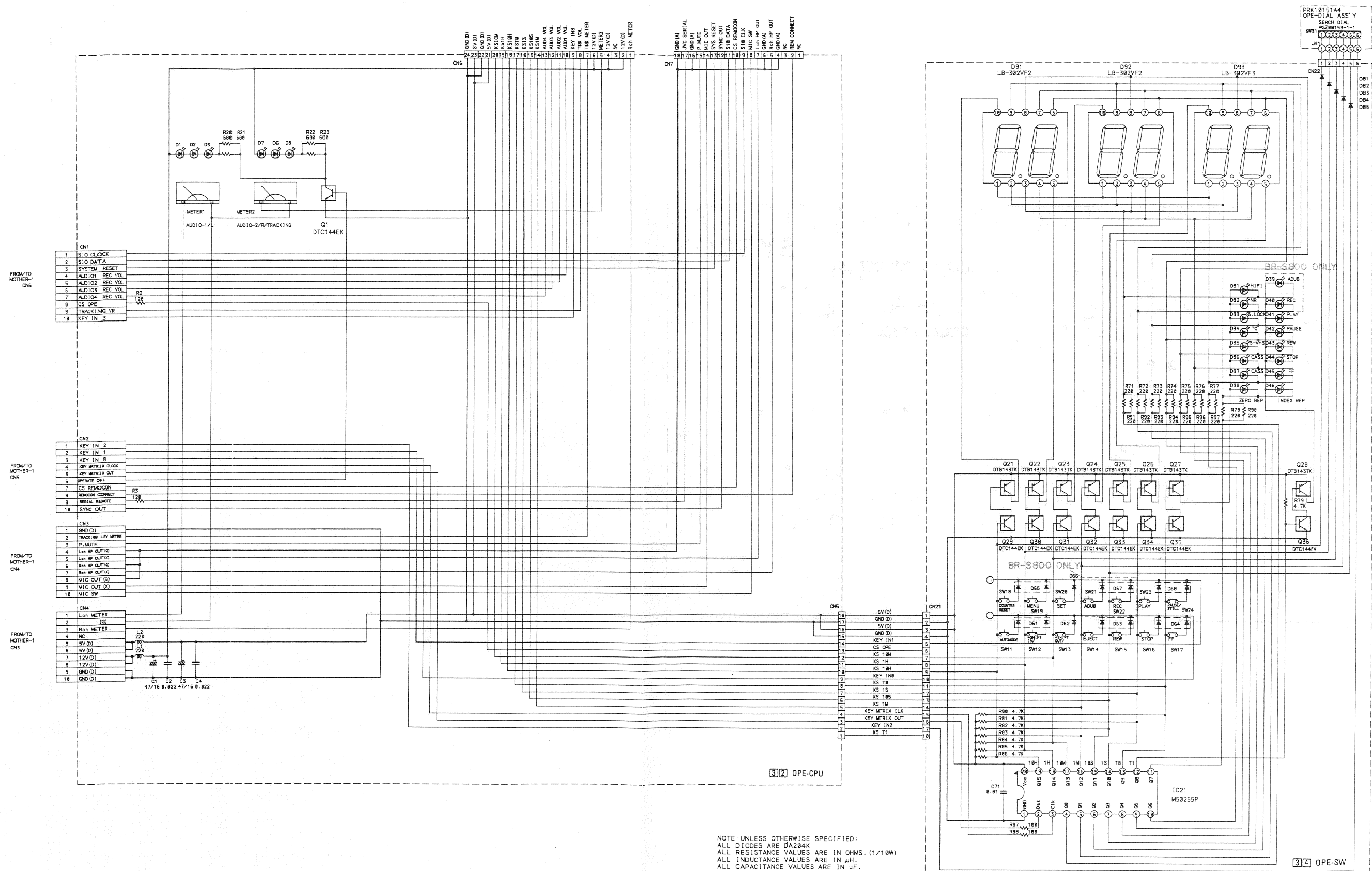


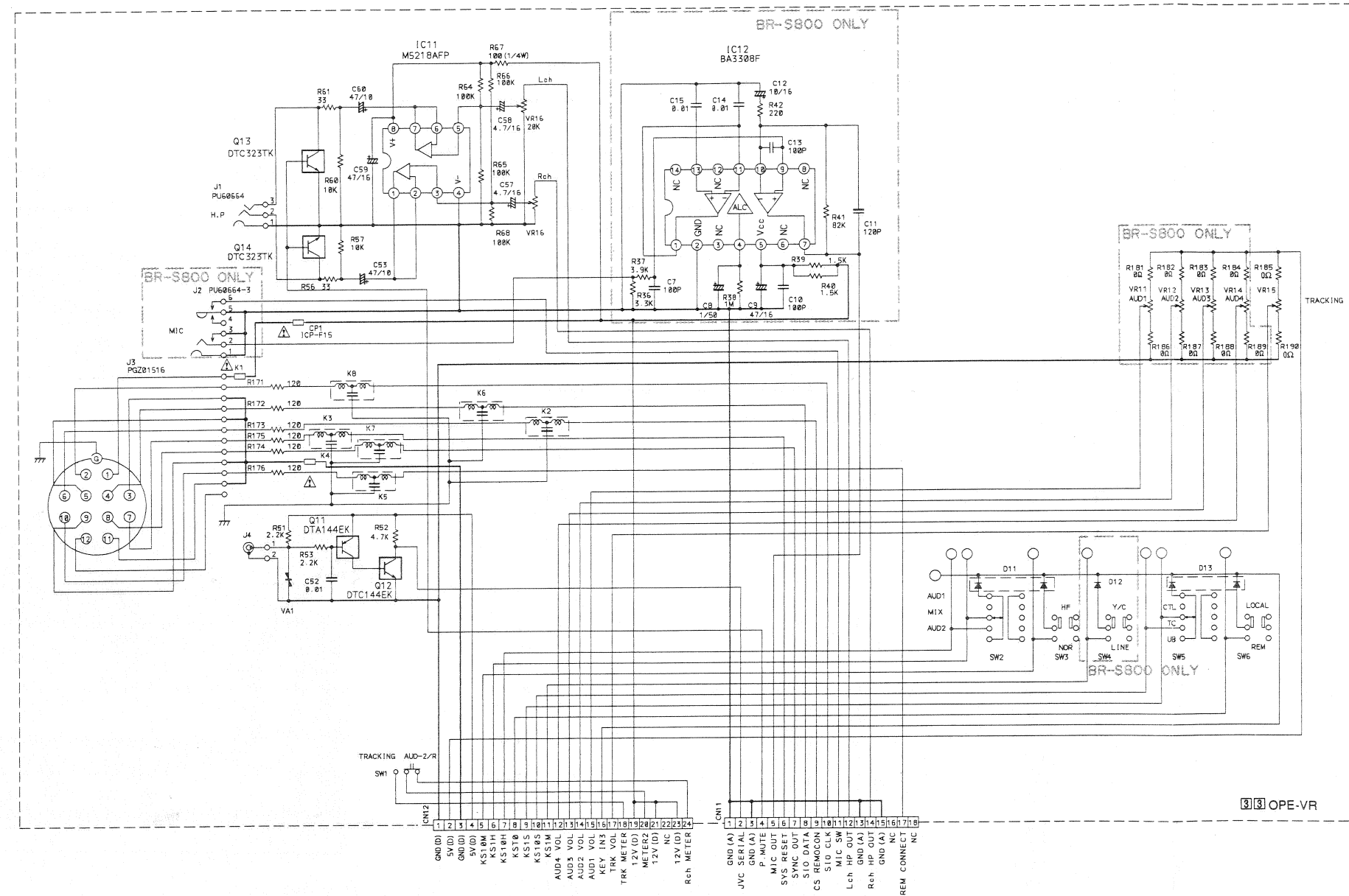
(PRK20214-01-01)

— DC Voltage —

SYMBOL No.		REC	PB	SYMBOL No.		REC	PB	SYMBOL No.		REC	PB
INTEGRATED CIRCUIT				IC7	1	5	2	5	2		
IC2	1234567890123456										

4.41 OPERATION SCHEMATIC DIAGRAM
— OPE-CPU, OPE-SW, DPE-DIAL —





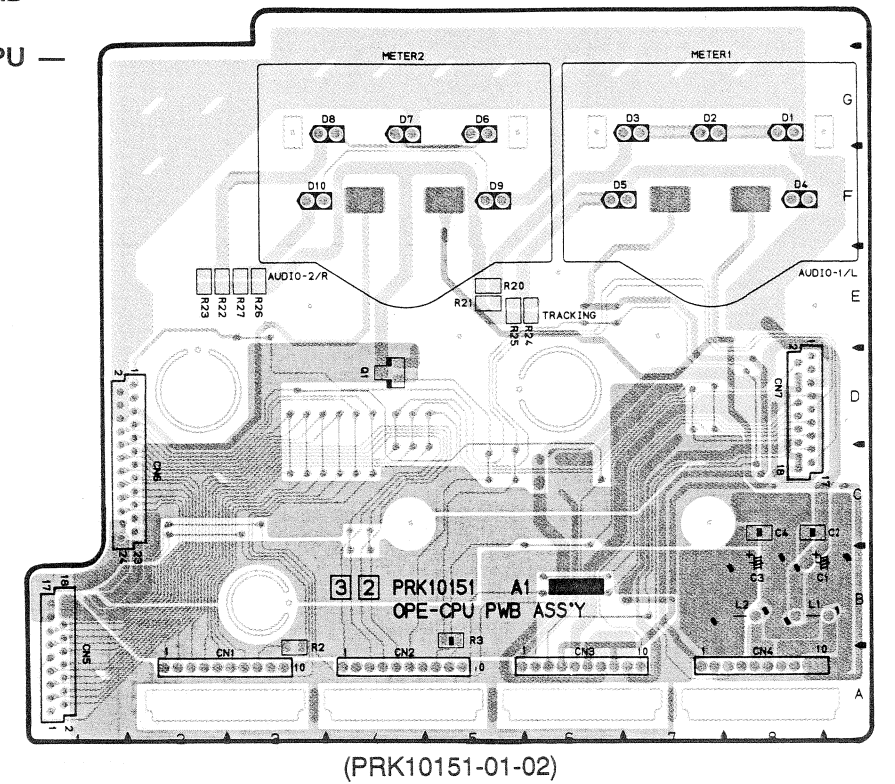
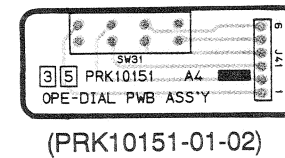
— DC Voltage —

SYMBOL No.		REC	PB	SYMBOL No.		REC	PB	SYMBOL No.		REC	PB
INTEGRATED CIRCUIT				Q26	B	4.1 5.2	4.1 5.2	CN5	1	0.0 0.0	

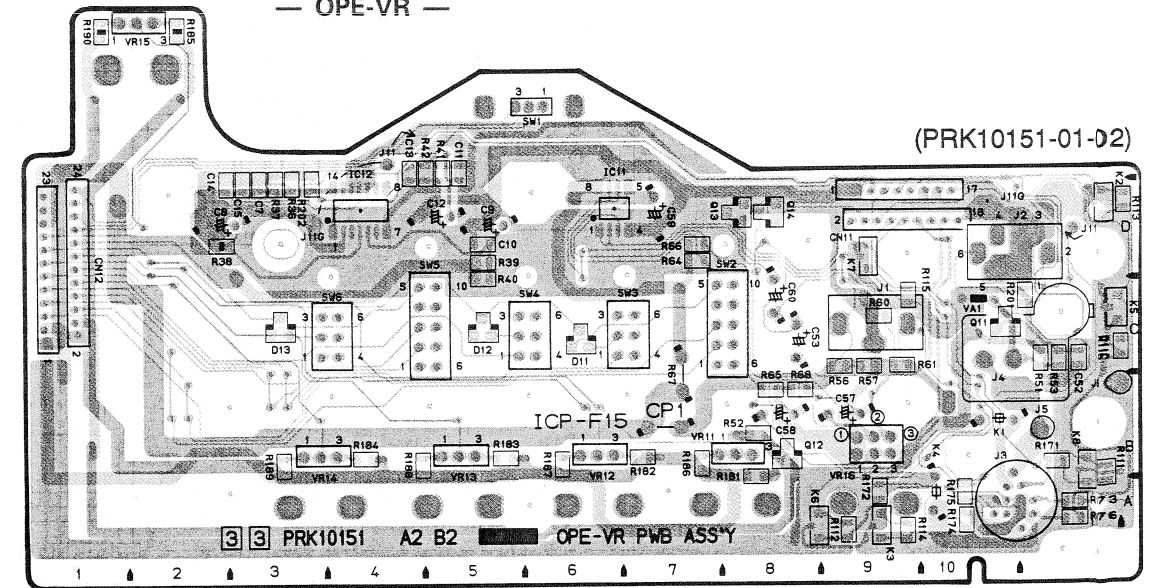
4.42 OPERATION CIRCUIT BOARD

— OPE-CPU —

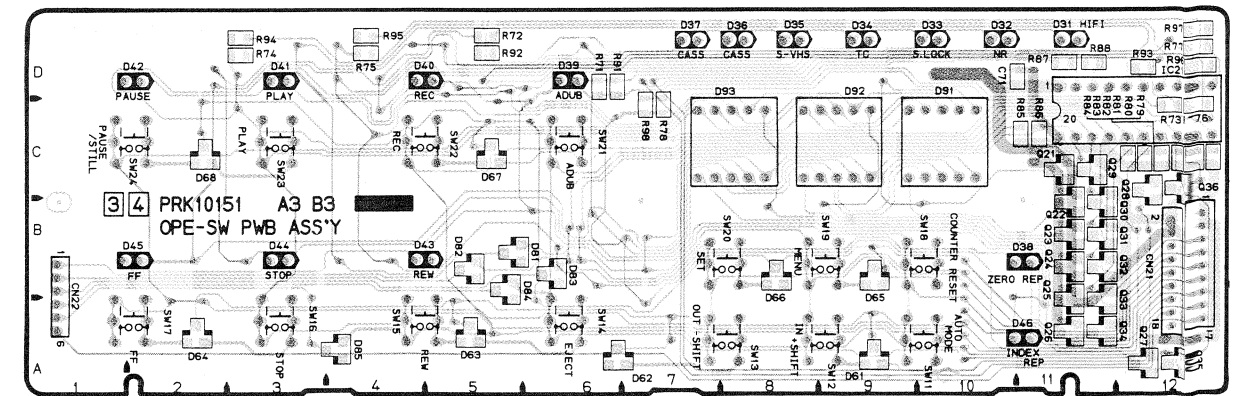
— OPE-DIAL —



— OPE-VR —

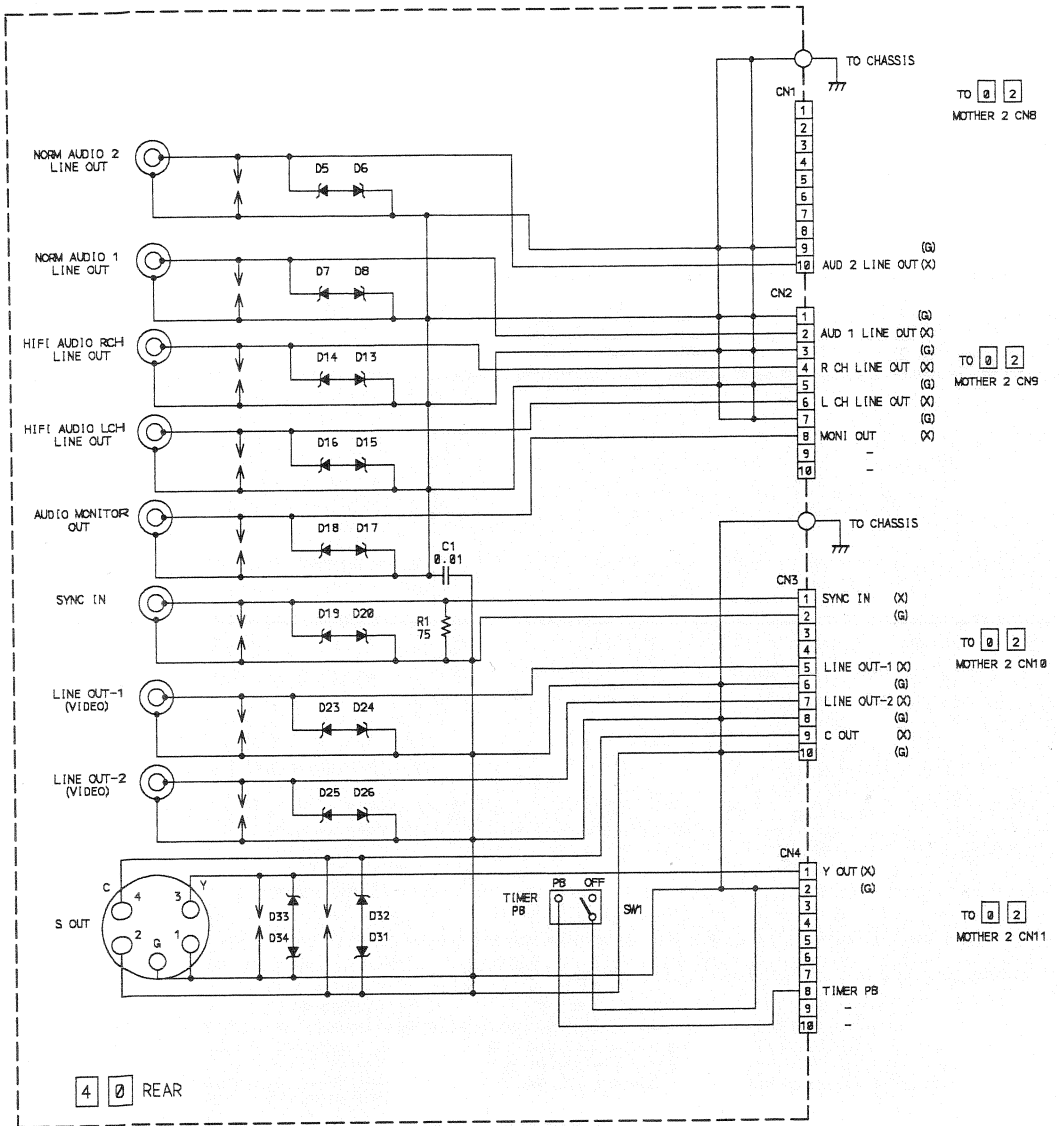


— OPE-SW —



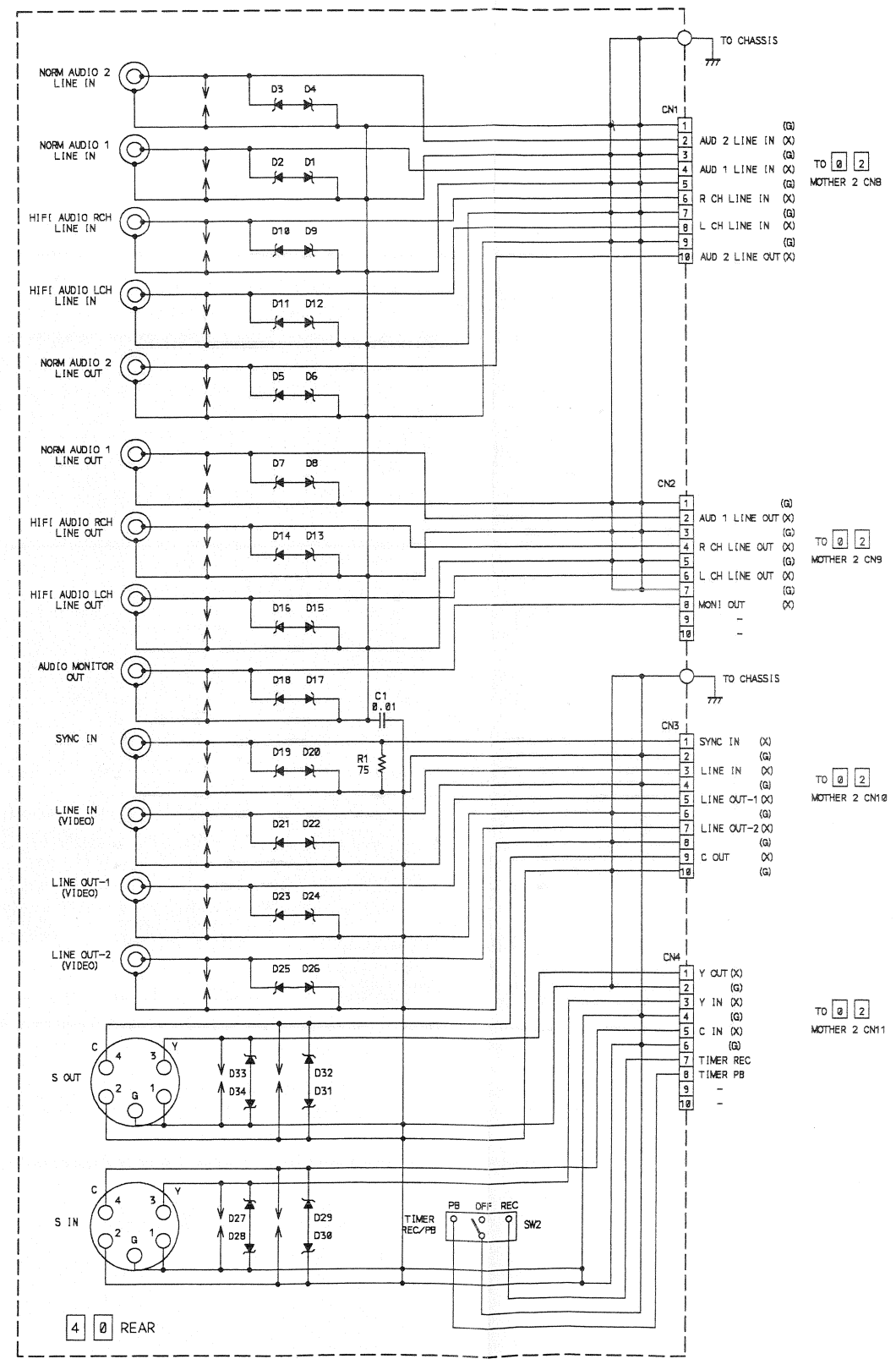
4.43 REAR SCHEMATIC DIAGRAM

— BR-S500E —



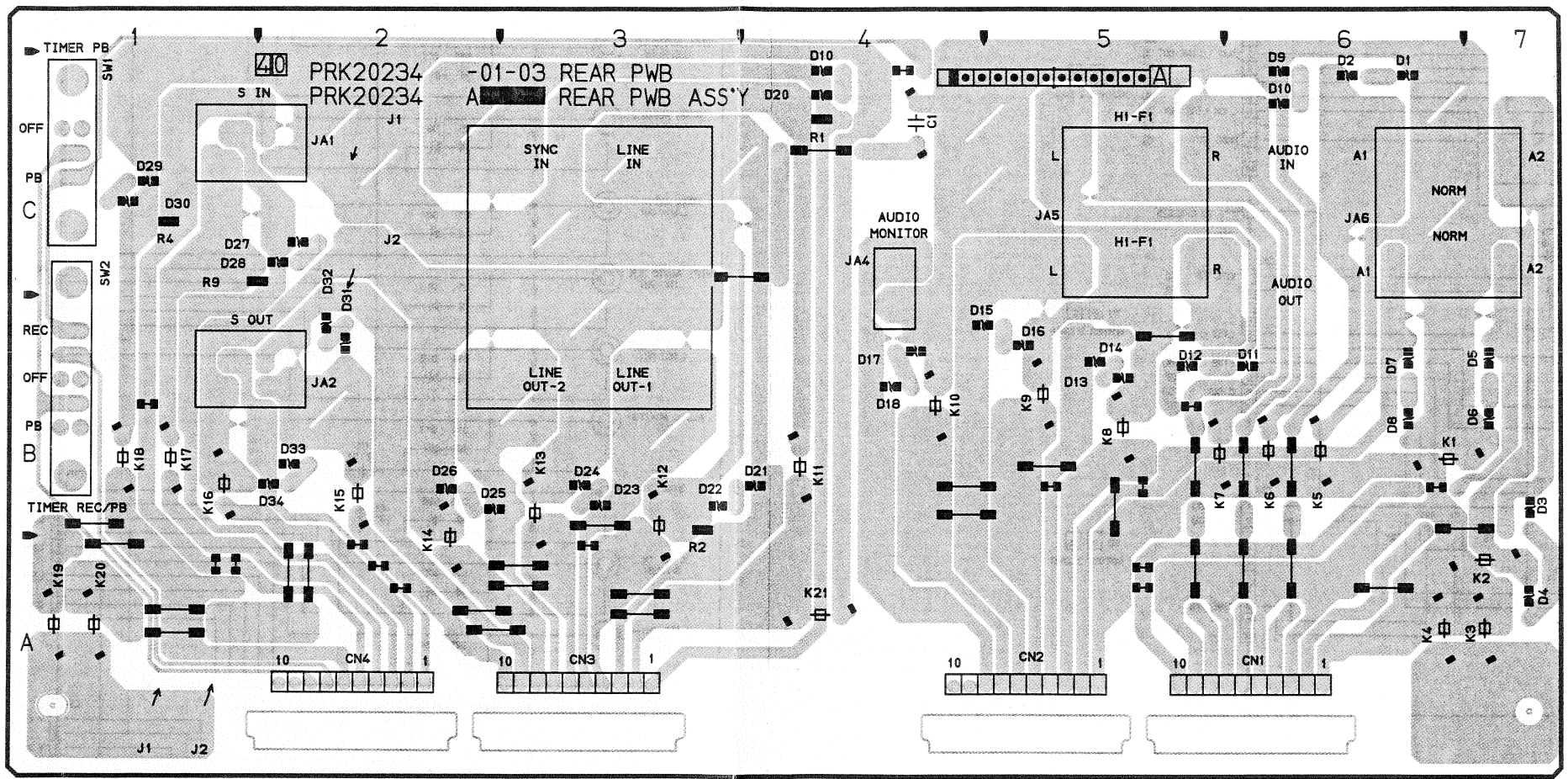
NOTE: UNLESS OTHERWISE SPECIFIED:
ALL ZENER DIODES ARE RD10ES-T1B1
ALL RESISTANCE VALUES ARE IN OHMS. (1/8W)
ALL CAPACITANCE VALUES ARE IN uF.
|| CERAMIC

— BR-S800E —



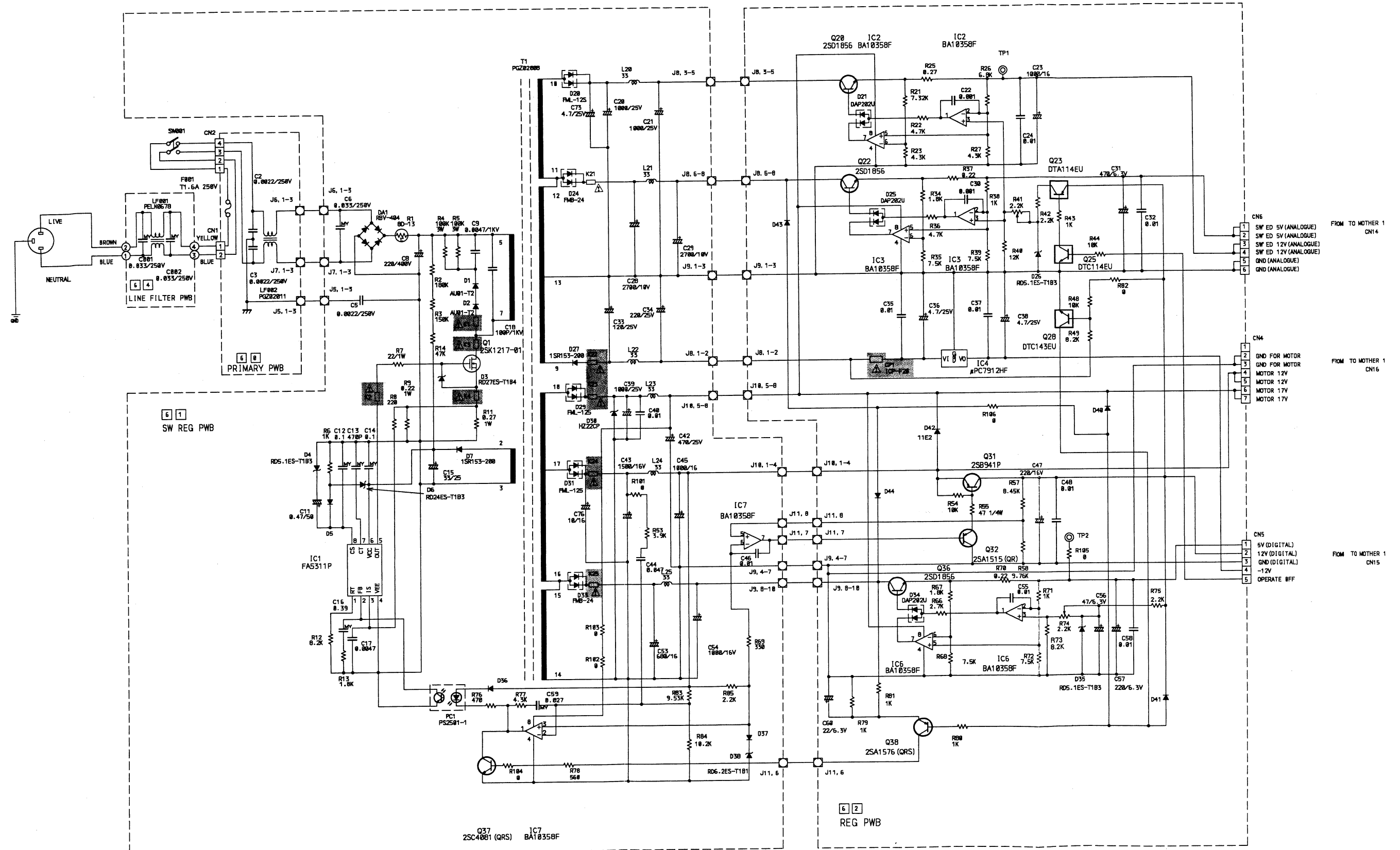
NOTE: UNLESS OTHERWISE SPECIFIED:
ALL ZENER DIODES ARE RD10ES-T1B1
ALL RESISTANCE VALUES ARE IN OHMS. (1/8W)
ALL CAPACITANCE VALUES ARE IN uF.
|| CERAMIC

4.44 REAR CIRCUIT BOARD



(PRK20234-01-03)

4.45 SWITCHING REGULATOR SCHEMATIC DIAGRAM



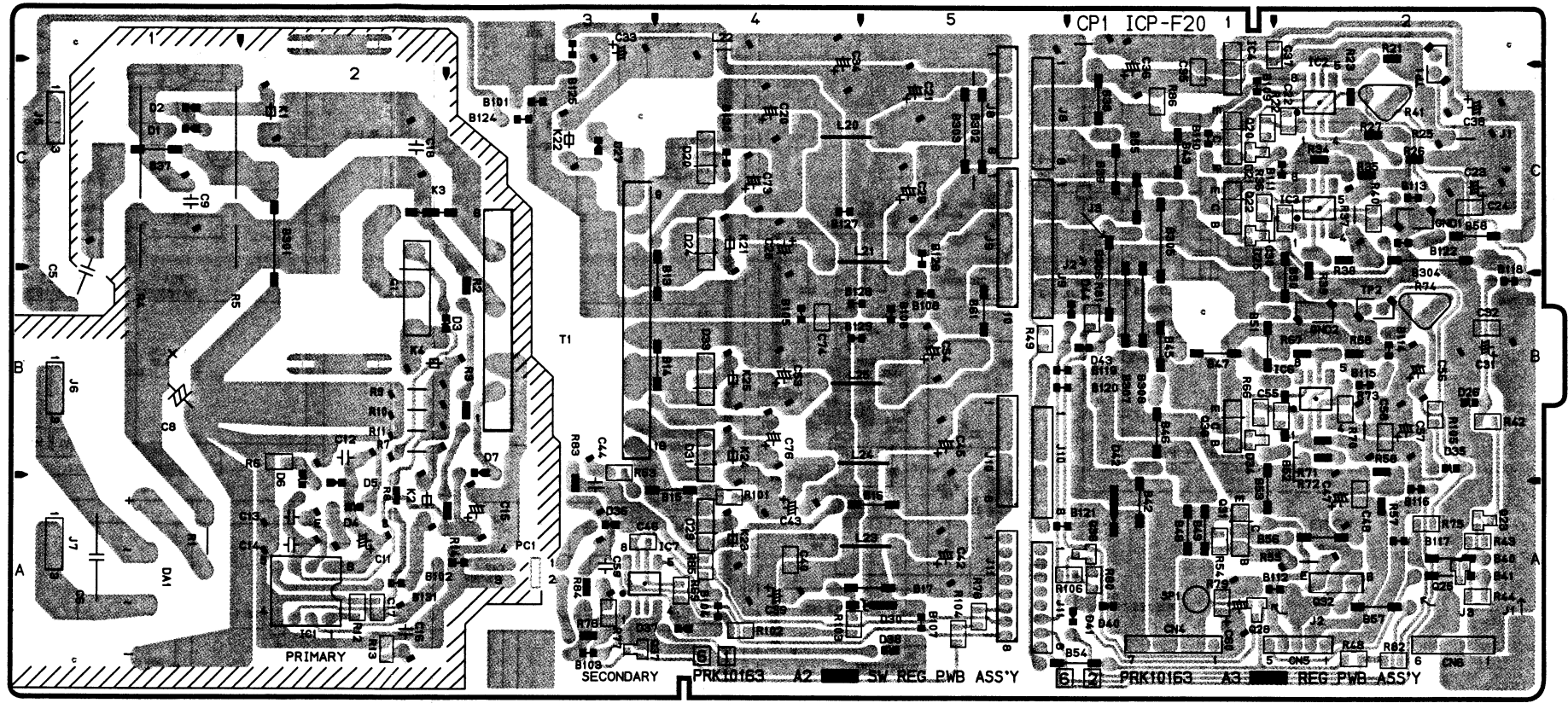
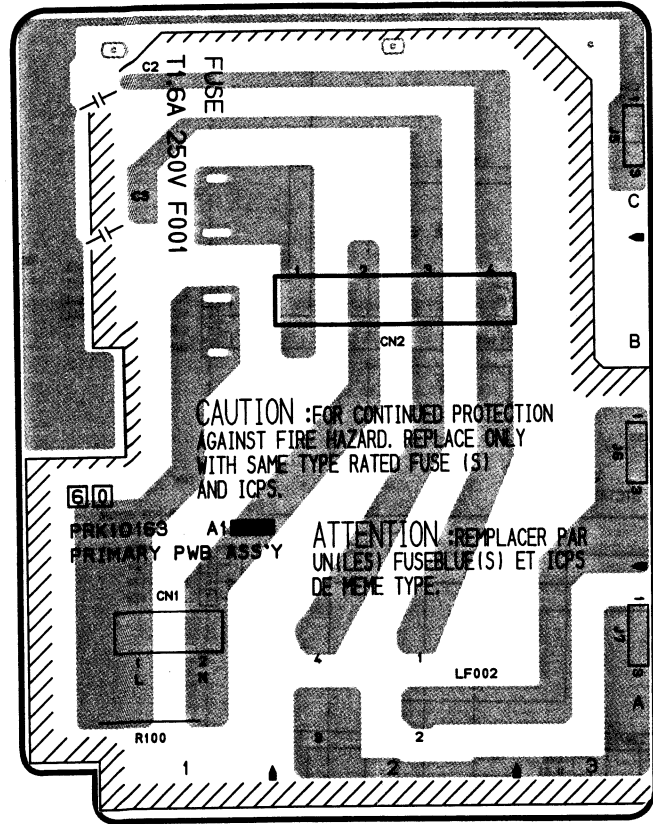
NOTE: UNLESS OTHERWISE SPECIFIED:
 ALL DIODES ARE 1SS133
 ALL RESISTANCE VALUES ARE IN OHMS. (#/HW)
 ALL INDUCTANCE VALUES ARE IN uH.
 ALL CAPACITANCE VALUES ARE IN uF.

⏏ ELECTROLYTIC
 ⏏ CERAMIC
 ⏏ MYLAR

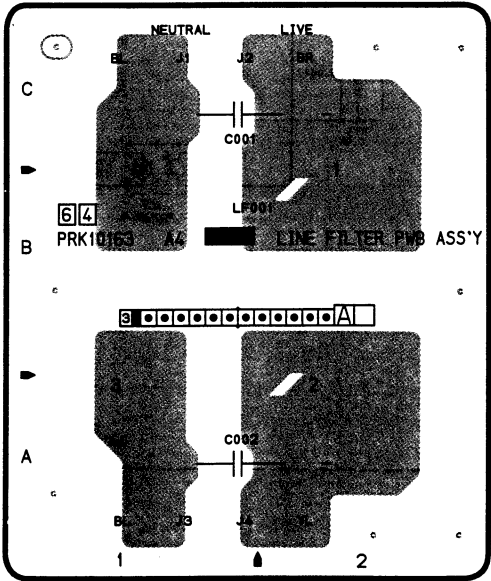
6
5
4
3
2
1

A B C 4-71 4-71 E F G H

4.46 SWITCHING REGULATOR CIRCUIT BOARD



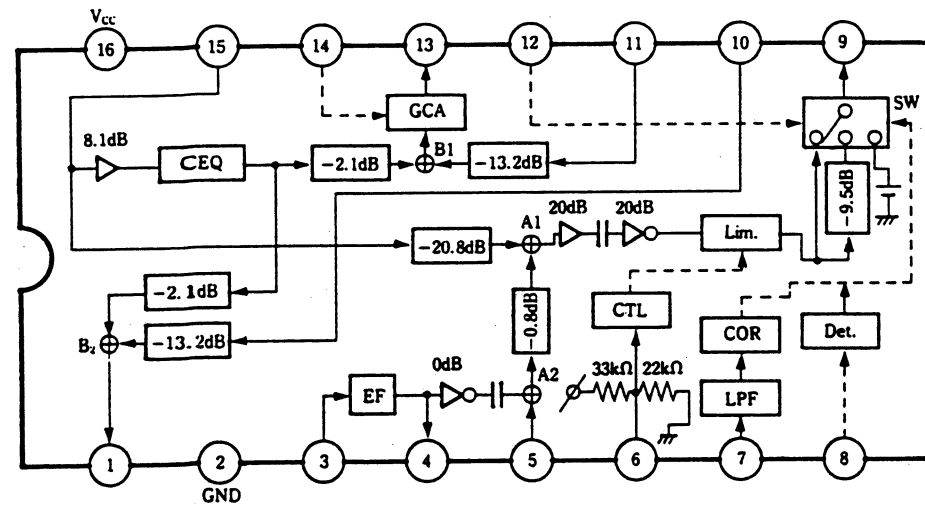
(PRK10163-01-03)



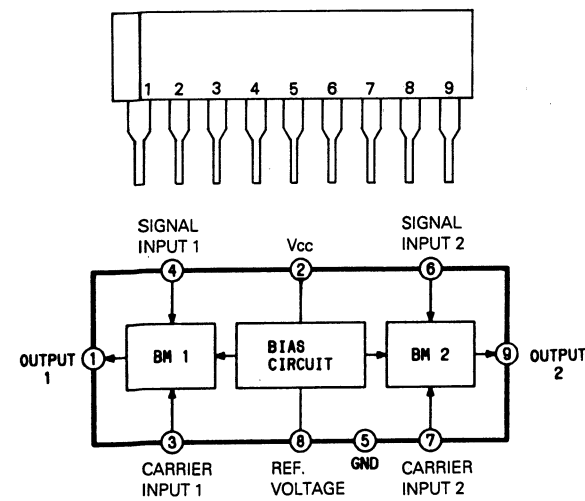
(PRK10163-01-03)

4.47 IC BLOCK DIAGRAM

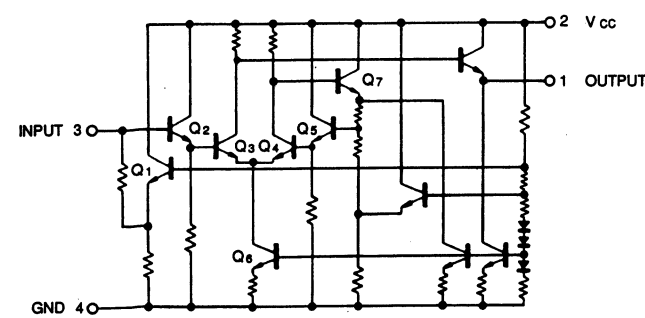
■ AN3497SB [Panasonic]
(CHROMA Noise Reduction for VTR)



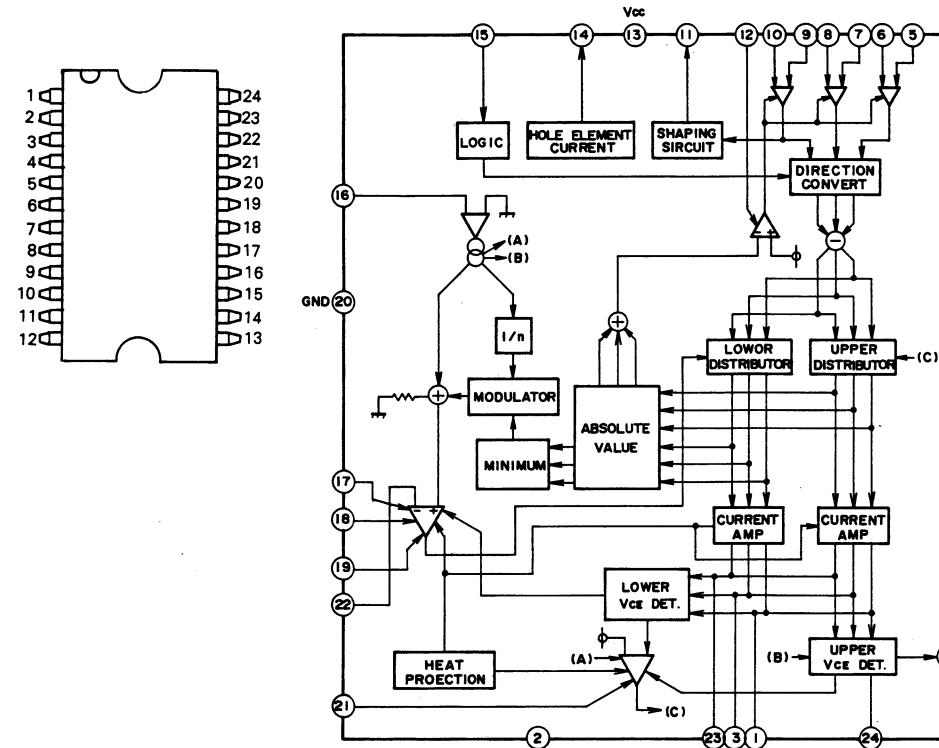
■ AN6041 [MATSUSHITA]
(Dual Balanced Modulator)



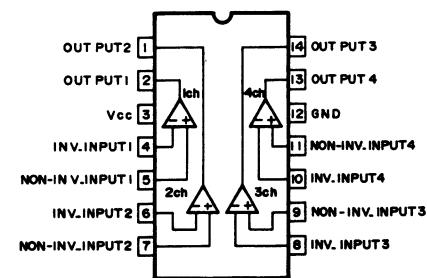
■ AN607P [MATSUSHITA]
(Amp.)



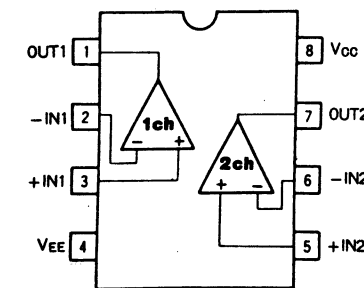
■ AN3834K [MATSUSHITA]
(VTR Reel Motor Drive)



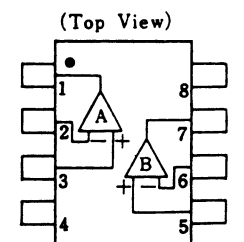
■ BA10339F [ROHM]
(Quad Comparator)



■ BA10358F [ROHM]
(Dual Ground Sense Op.Amp)

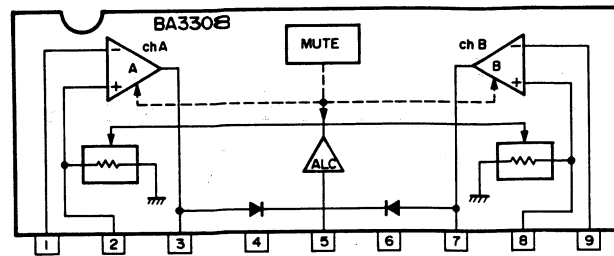


■ BA10393F [ROHM]
(Dual Comparator)

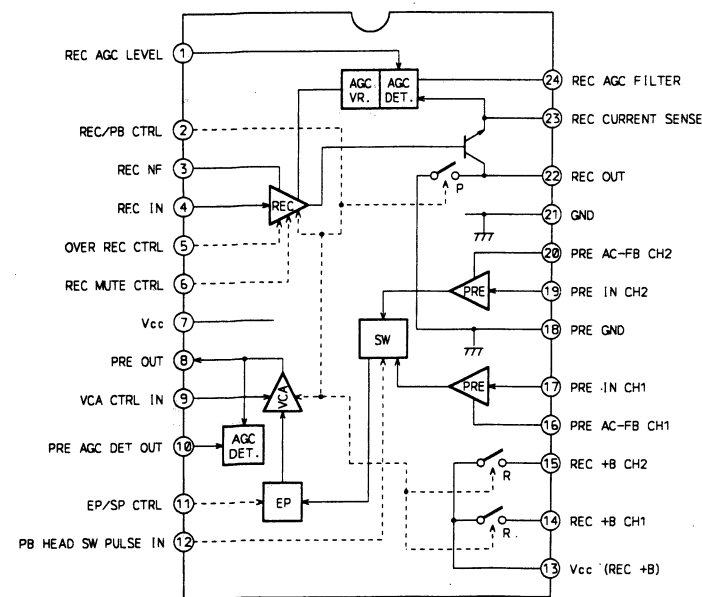
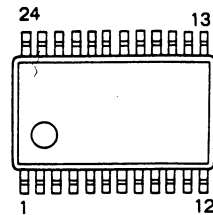


- Pin
- 1. A OUTPUT
 - 2. A-INPUT
 - 3. A+INPUT
 - 4. V-
 - 5. B+INPUT
 - 6. B-INPUT
 - 7. B OUTPUT
 - 8. V+

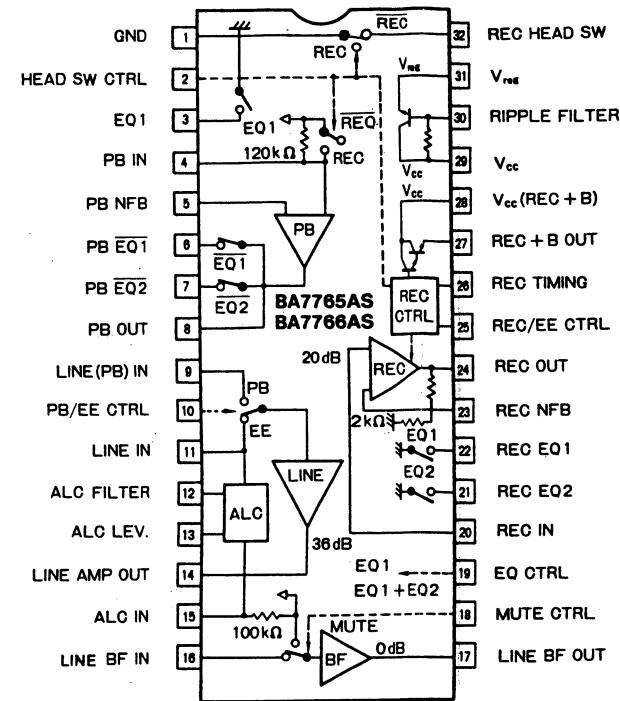
■ BA3308F [ROHM]
(Dual Pre.Amp With ALC)



■ BA7743FS [ROHM]
(VTR HiFi Audio Signal REC/PB Amp.)

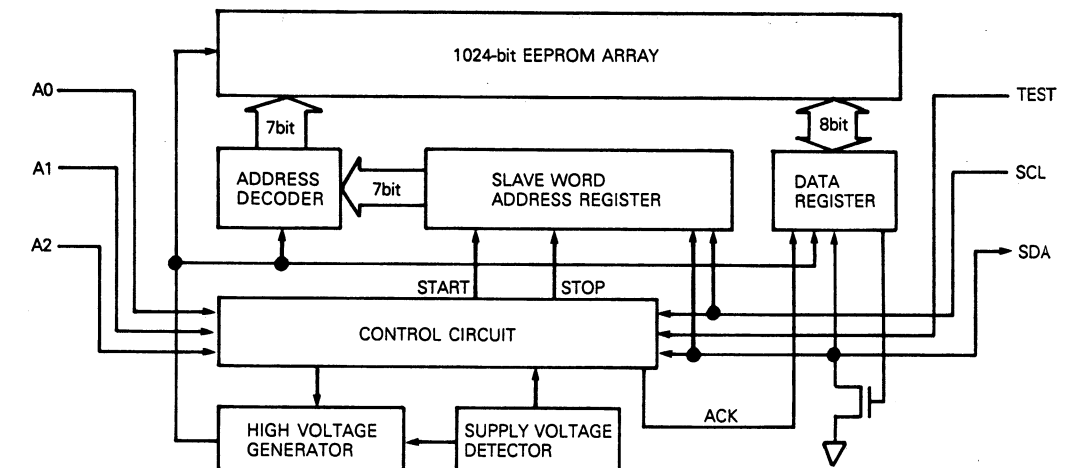
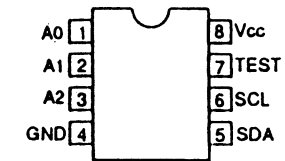


■ BA7765AS [ROHM]
(Normal Audio Signal Processor)

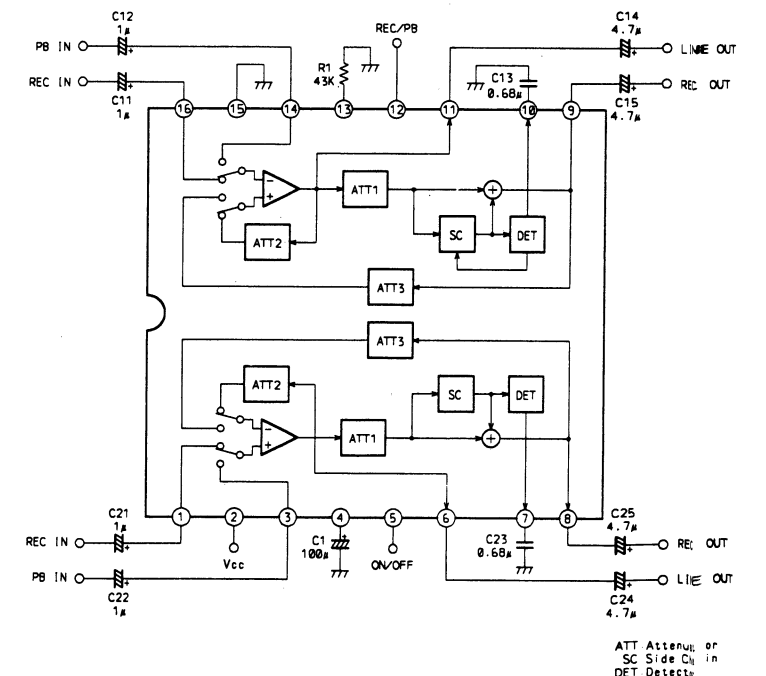
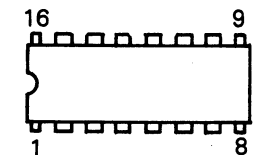


(TOP VIEW)

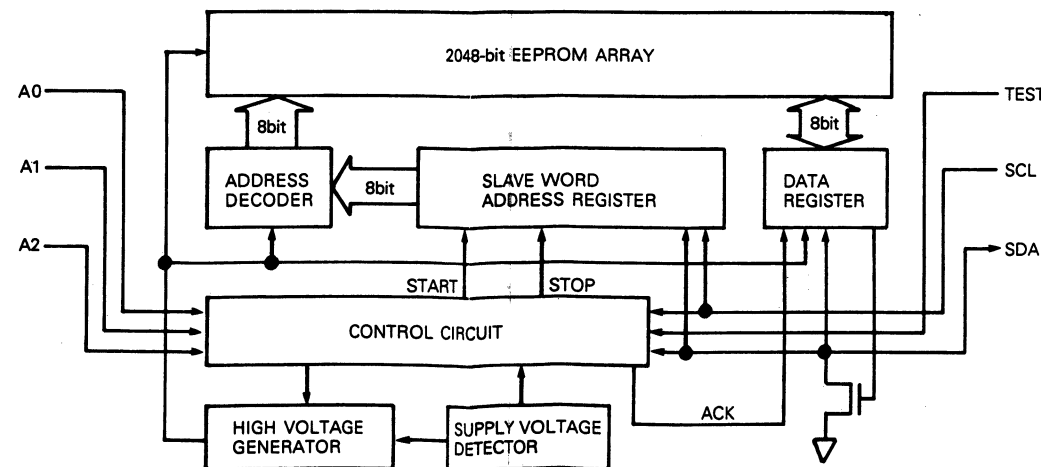
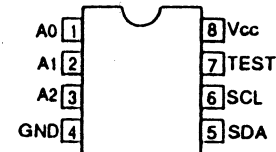
■ BR24C01AF [ROHM]
(IIC Bus 1k Serial EEPROM)



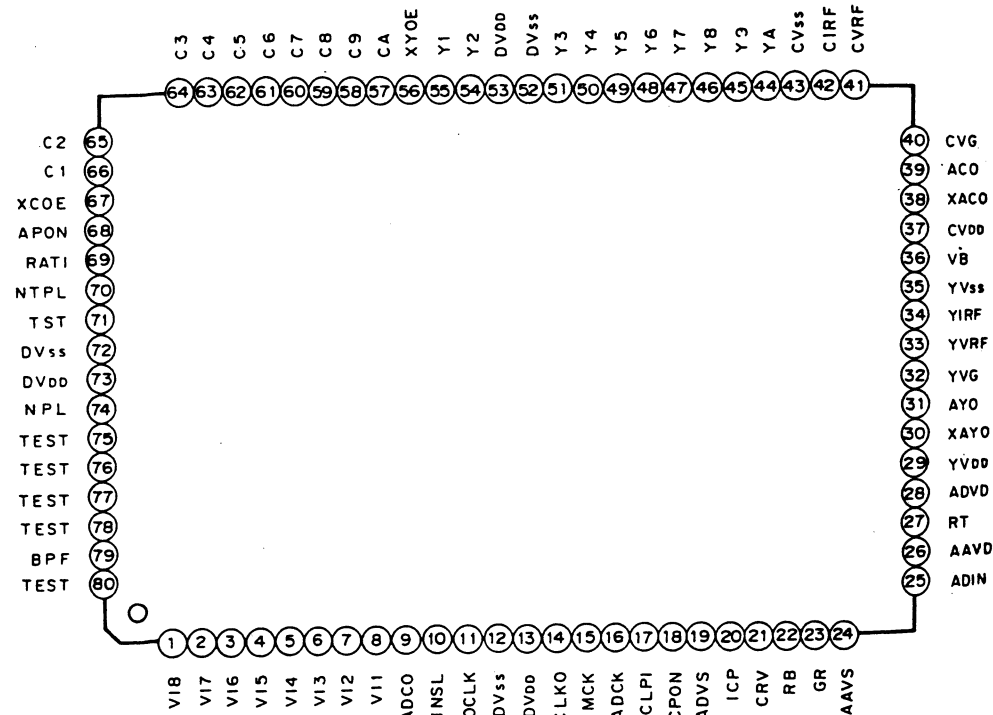
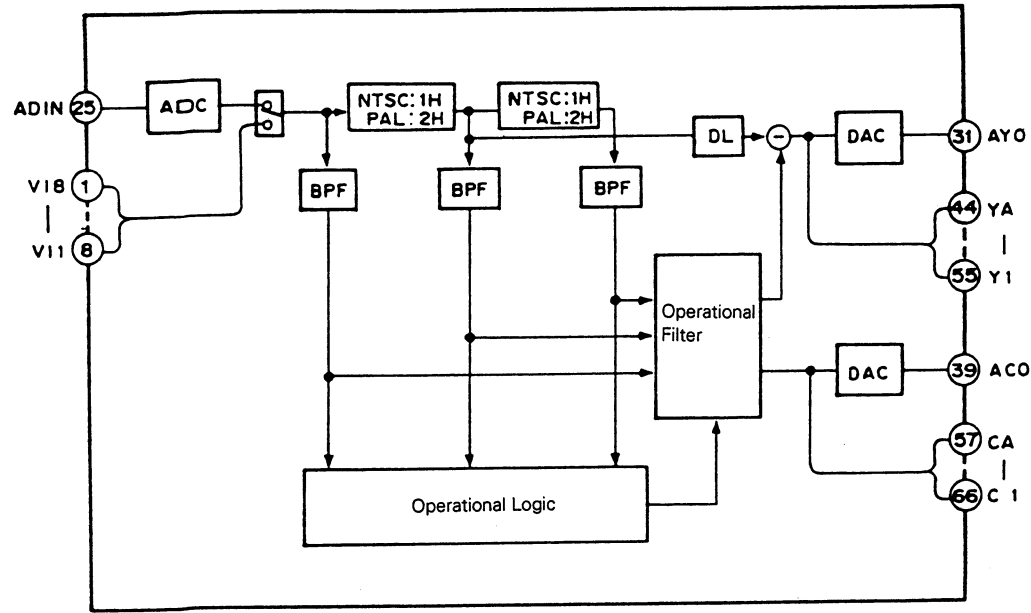
■ CXA1101P [SONY]
(Dolby Noise Reduction Circuit)



■ BR24C02F [ROHM]
(IIC Bus 2k Serial EEPROM)

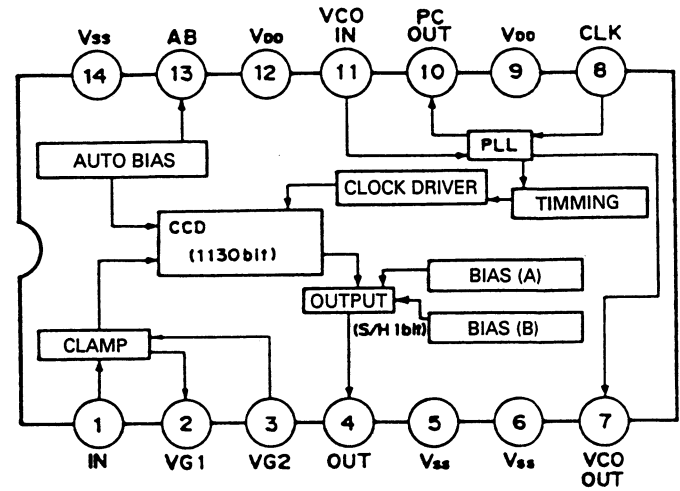


■ CXD2024Q [SONY]
(Digital Comb Filter (NTSC/PAL))

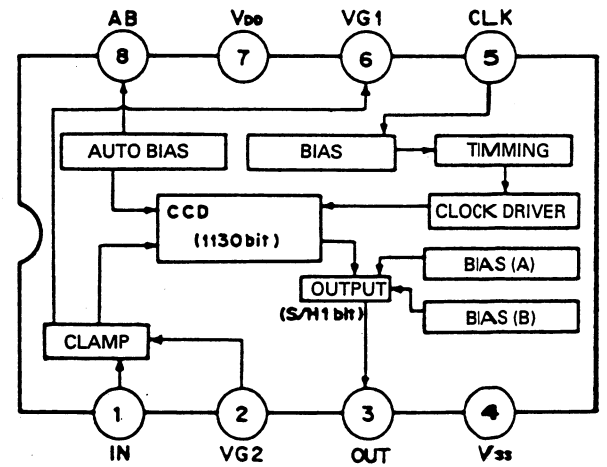


Pin No.	Symbol	I/O	Description
1	VI8	I	Digital input (MSB) When this pin is out of use, connect it with DVss or DVdd.
2	VI7	I	Digital input When this pin is out of use, connect it with DVss or DVdd.
3	VI6	I	Digital input When this pin is out of use, connect it with DVss or DVdd.
4	VI5	I	Digital input When this pin is out of use, connect it with DVss or DVdd.
5	VI4	I	Digital input When this pin is out of use, connect it with DVss or DVdd.
6	VI3	I	Digital input When this pin is out of use, connect it with DVss or DVdd.
7	VI2	I	Digital input When this pin is out of use, connect it with DVss or DVdd.
8	VI1	I	Digital input (LSB) When this pin is out of use, connect it with DVss or DVdd.
9	ADCO	I	H: Outputs video signal supplied from A-D converter (input pin: ADIN) as 8-bit digital data which is delayed by 3.5 clocks from Y OUT terminal. L: General operation mode
10	INSL	I	Input switching. Switches comb filter input. H: Digital input L: Analog input
11	OCLK	I	Clock amp. input. Input clock at a level of 0.8 Vp-p or higher after its DC component is cut off by capacitor.
12	DVss	—	Digital power ground
13	DVdd	—	Digital power supply (5 V)
14	CLKO	O	Clock amp. output
15	MCK	I	Clock input. Input 4 fsc clock locked with color burst to this pin. This pin is generally connected with the pin 14 (clock amp output).

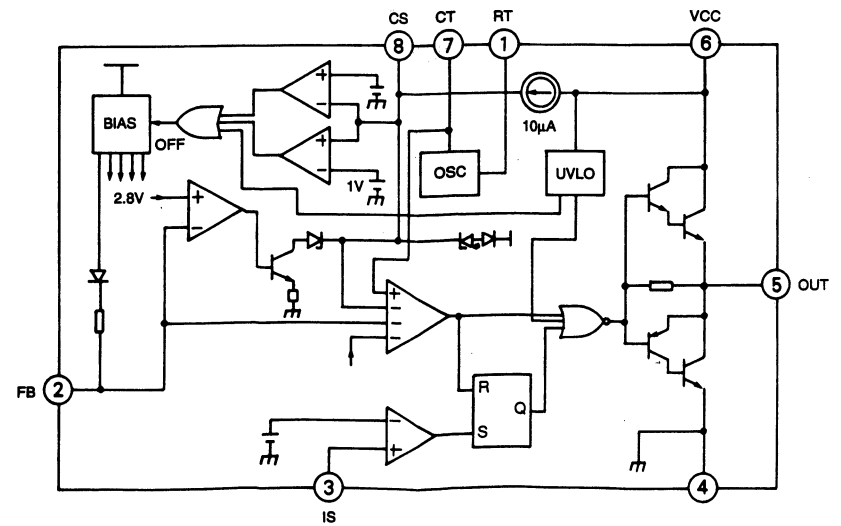
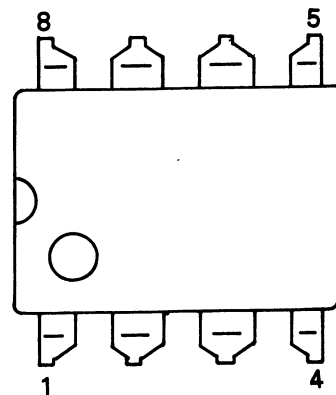
■ CXL5505M [SONY]
(CMOS-CCD 1H Delay Line for PAL)



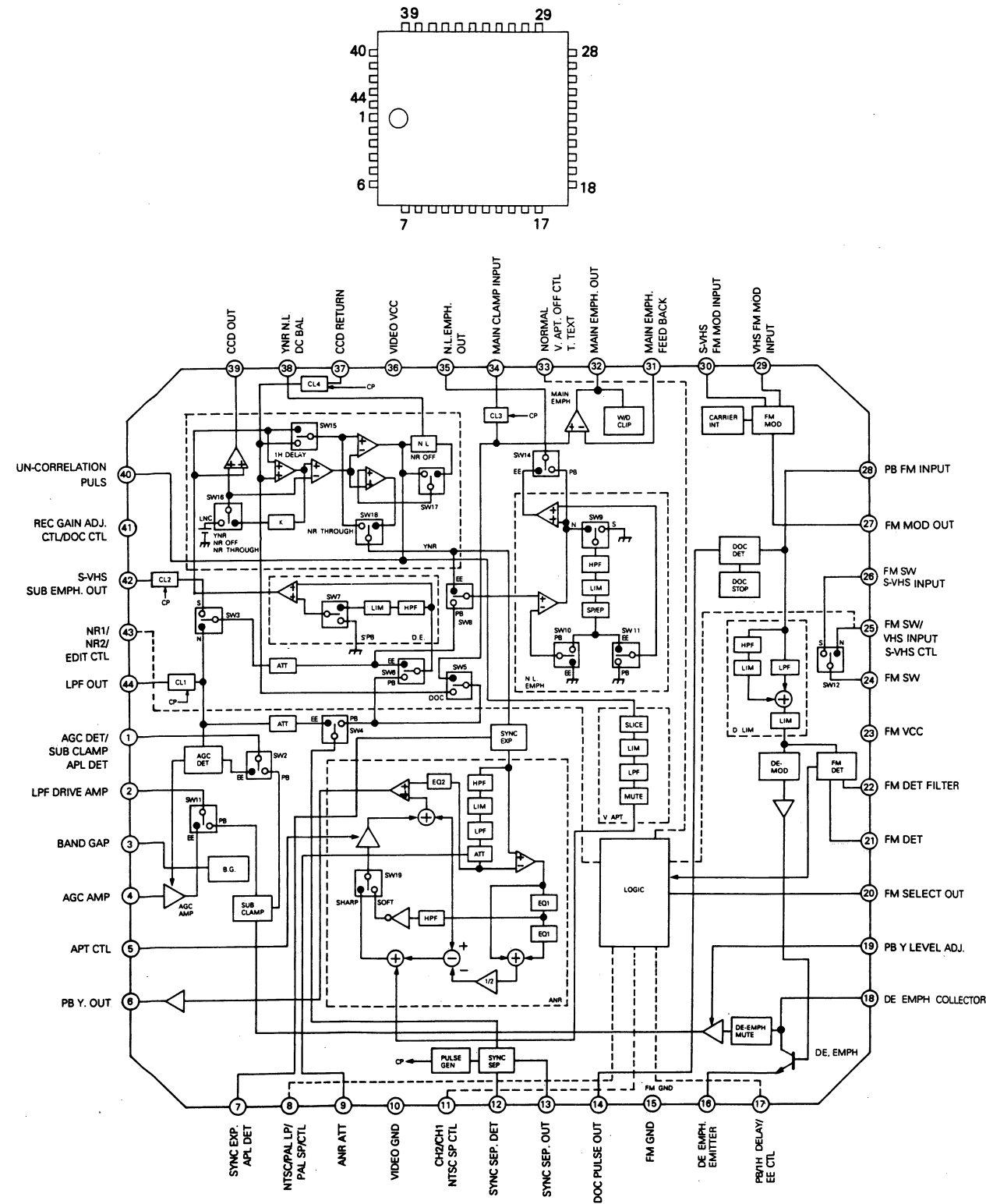
■ CXL5506M [SONY]
(CMOS-CCD 1H Delay Line for PAL)



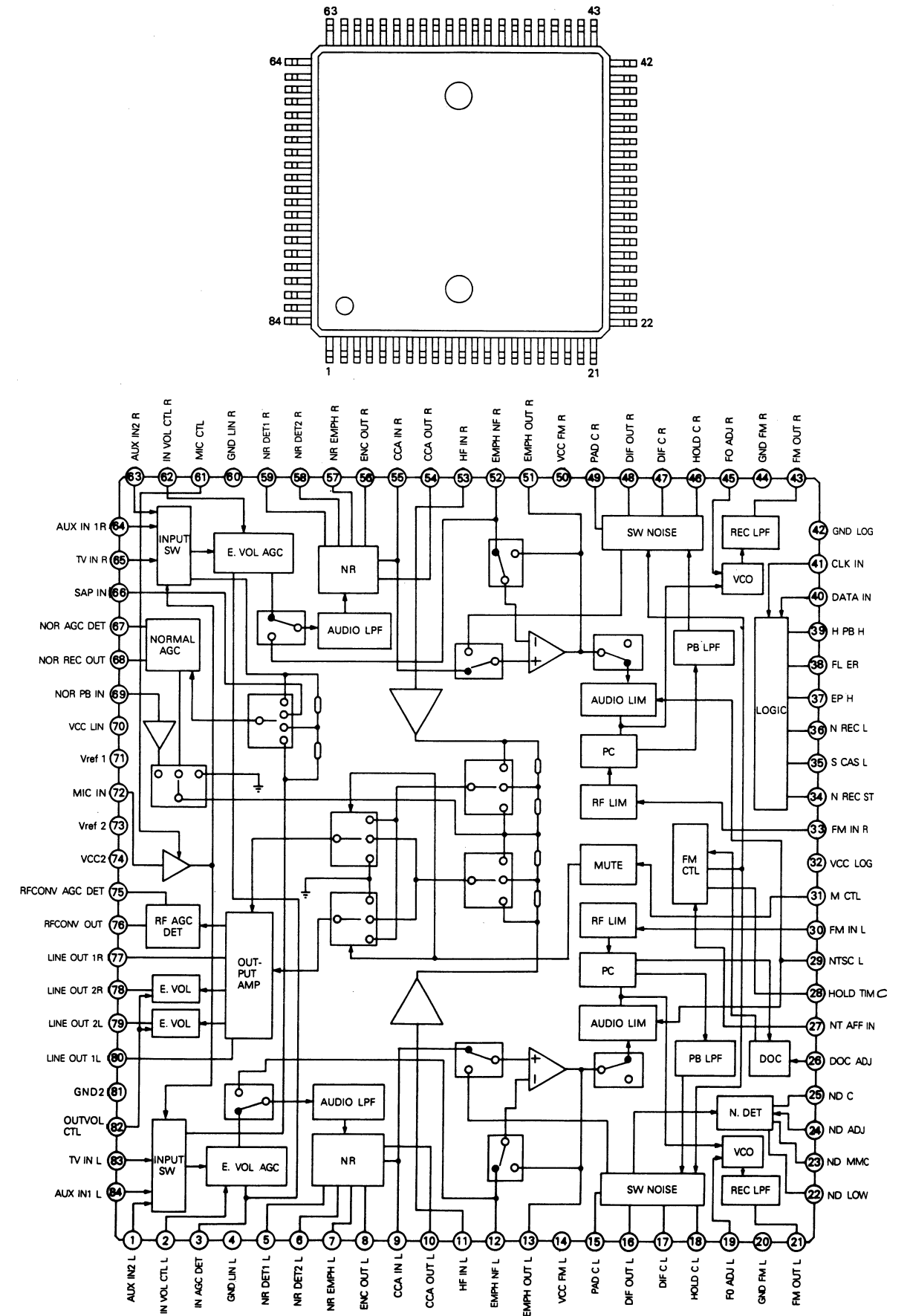
■ FA5311P [FUJI ELECTRIC]
(PWM Switching Regulator)



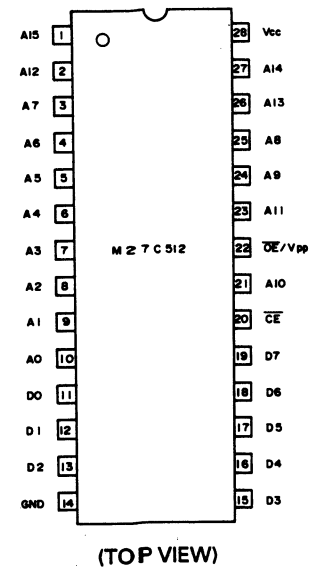
■ JCP0032-HT [JVC]
(FM Signal Processor)



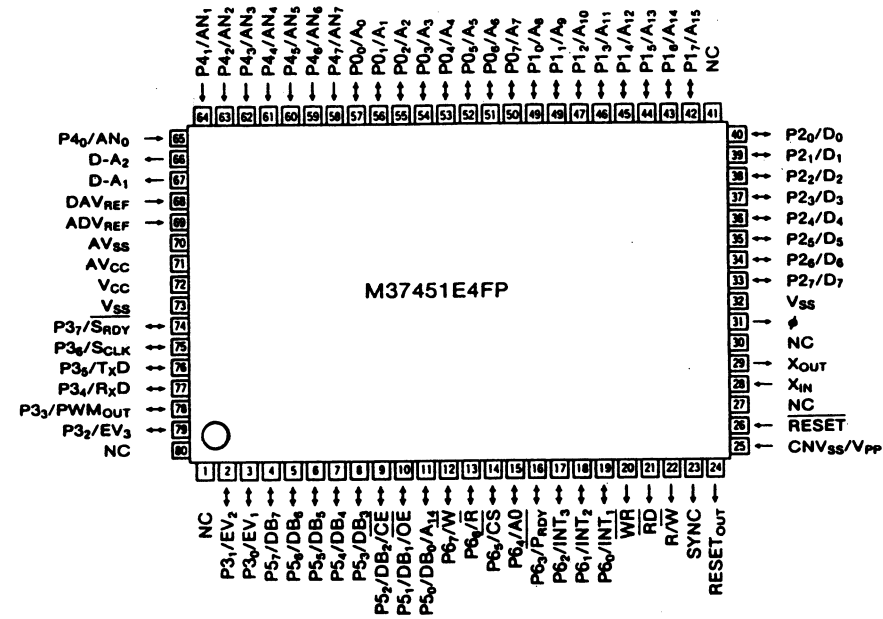
■ JCP0038 [JVC]
(FMA Signal Processor)



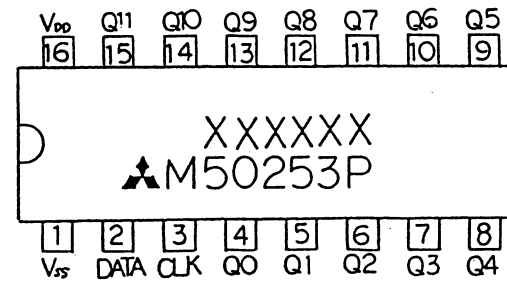
■ M27C512-15F1 [MITSUBISHI]
(524288 Bit Programmed EPROM)



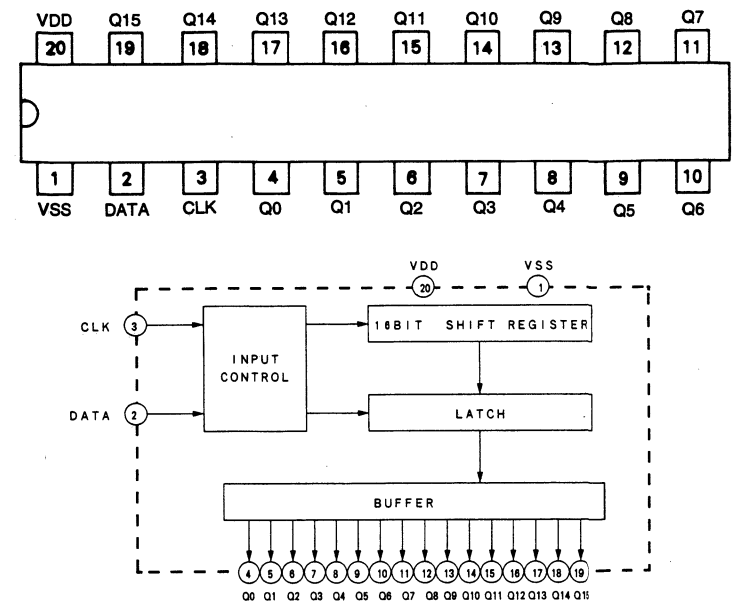
■ M37451E8-504FP [JVC]
(8 Bit CMOS Micro Computer)



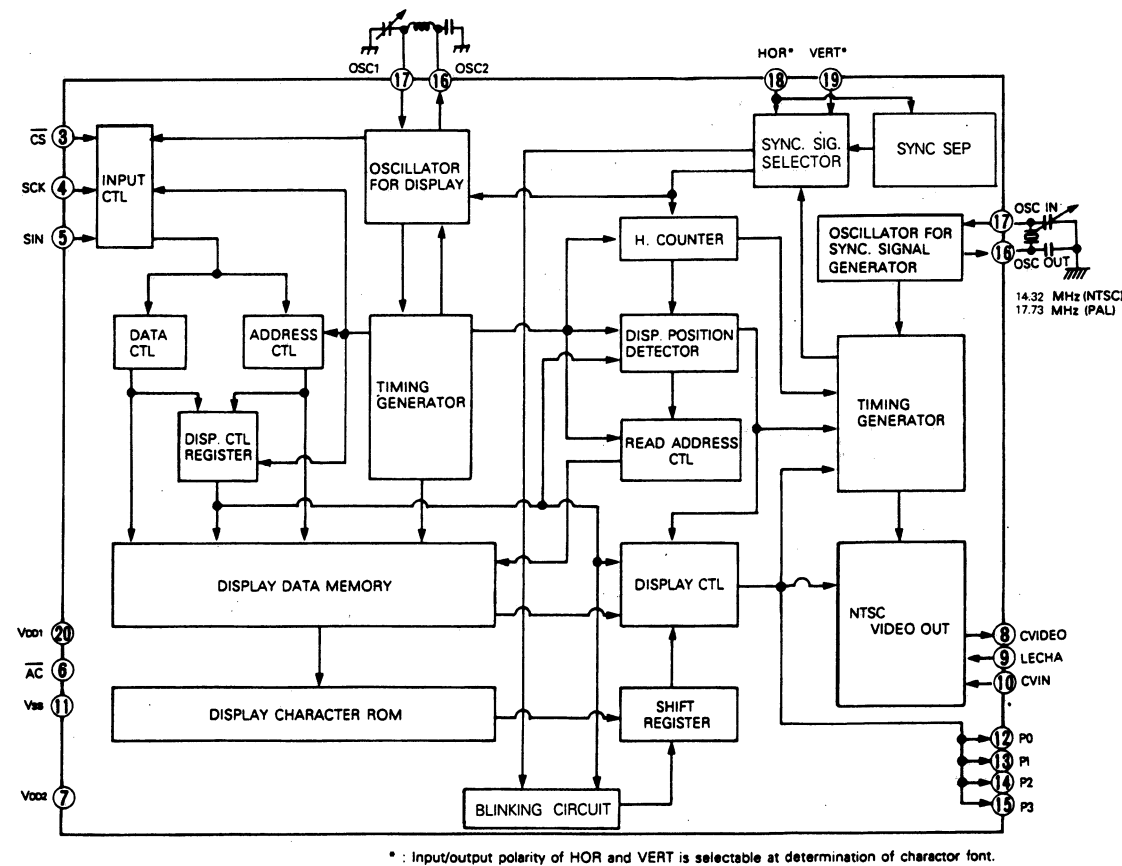
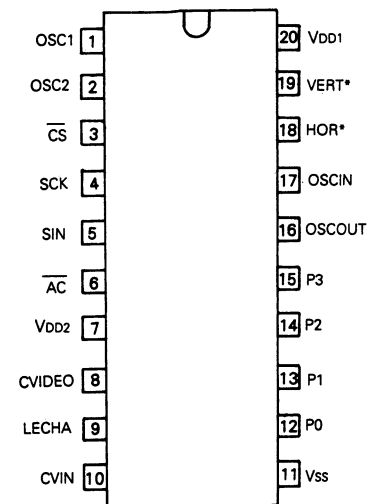
■ M50253P [MITSUBISHI]
(Serial/Parallel Converter)



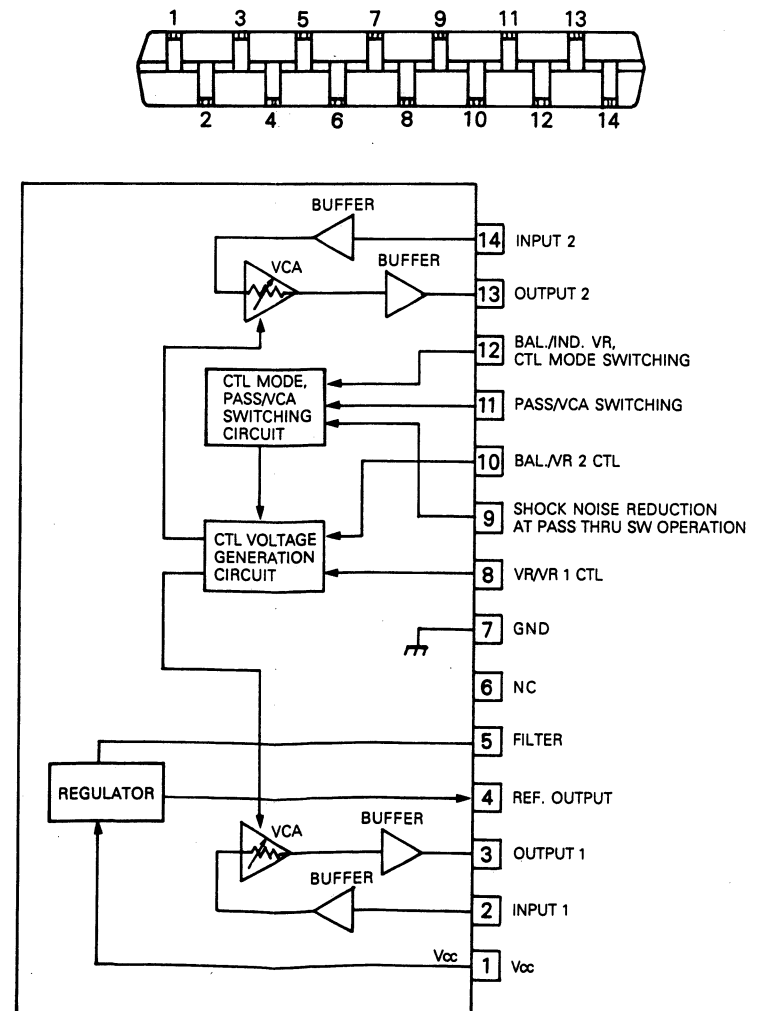
■ M50255P [MITSUBISHI]
(16 Bit Serial/Parallel Converter)



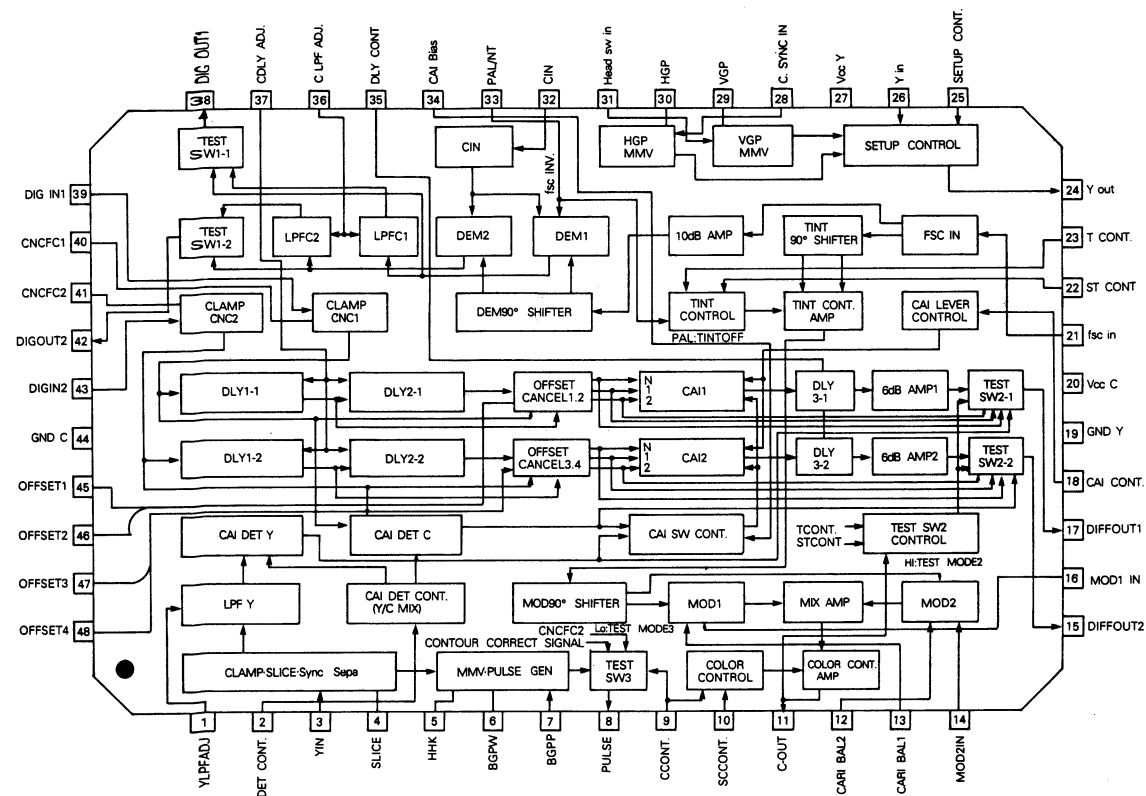
■ M35010-089SP [MITSUBISHI]
(Character Generator)



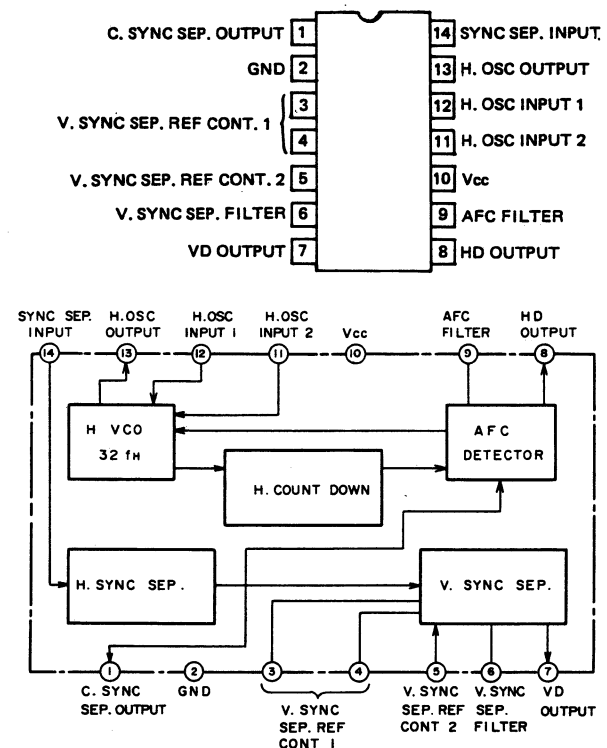
■ M51132L [MITSUBISHI]
(2-Channel Electrical Volume)



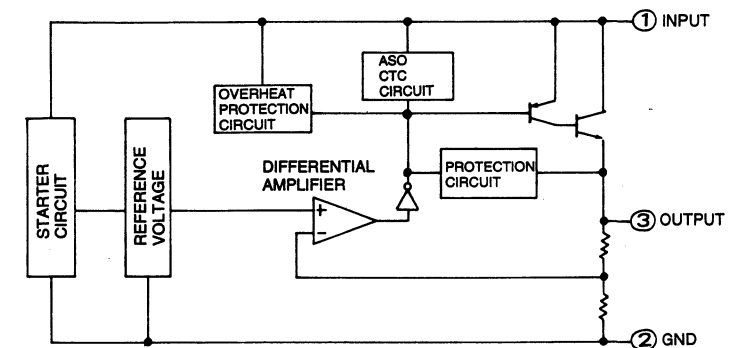
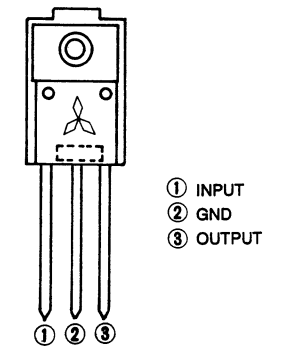
■ M52350GP [MITSUBISHI]
(Color Signal Processor)



■ M52684AP [MITSUBISHI]
(SYNC Separator and AFC)



■ M5278D05 [MITSUBISHI]
(3 Terminal Positive Voltage Regulator
(+ 5V))

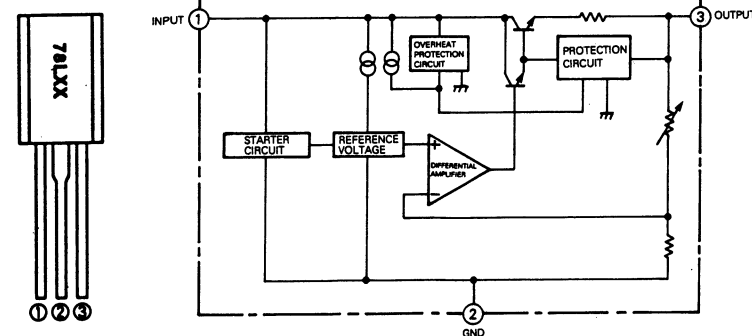


■ M5278D09 [MITSUBISHI]
(See M5278D05.)

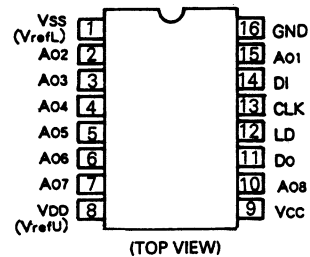
■ M5278L09 [MITSUBISHI]
(See M5278L05)

■ M5278L05 [MITSUBISHI]
(3 Terminal Negative Voltage Regulator
(- 5V))

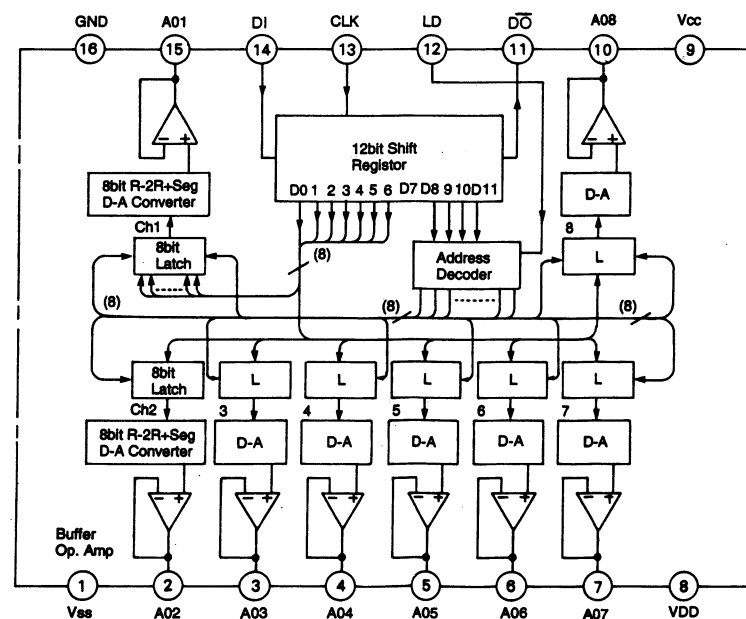
L TYPE



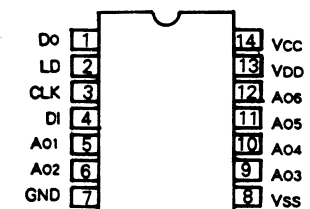
■ M62353GP [MITSUBISHI]
(8-Bit 8-Channel D/A Converter)



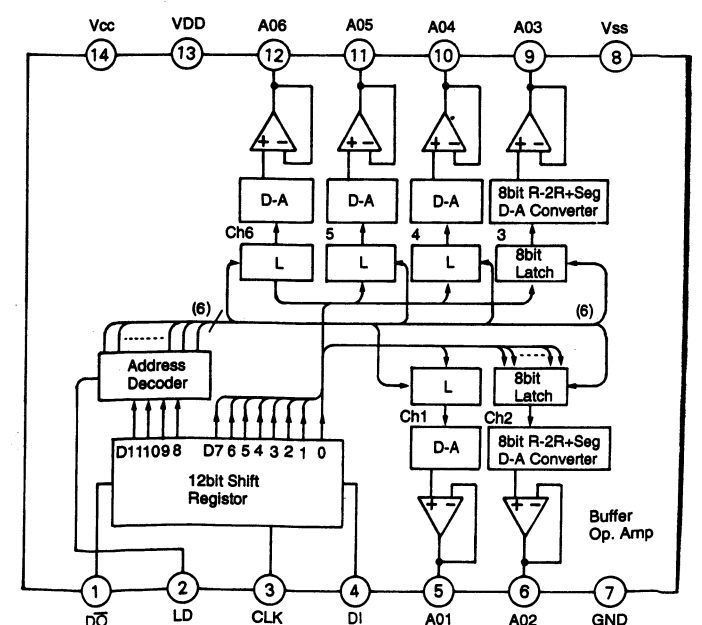
(TOP VIEW)



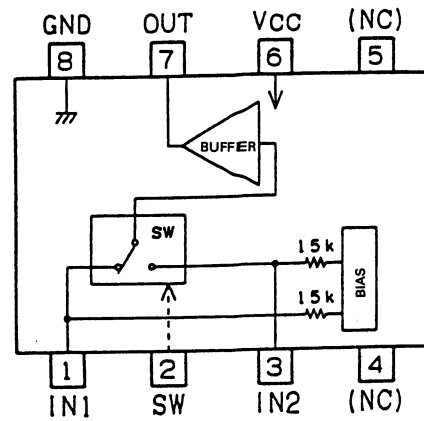
■ M62354FP [MITSUBISHI]
(8-Bit 6-Channel D/A Converter)



(TOP VIEW)



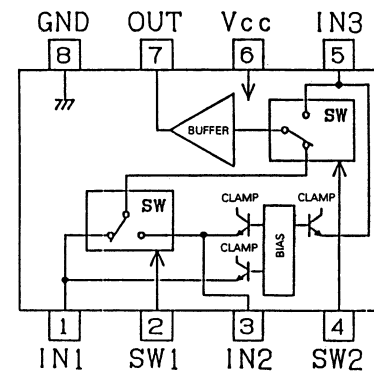
■ MM1111XF [MITSUMI]
(2 Input 1 Output Video Switch)



TRUTH TABLE

SW	OUT
L	IN1
H	IN2

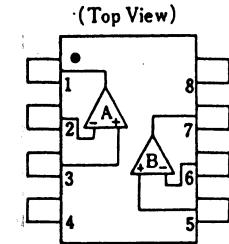
■ MM1117XF [MITSUMI]
(3 Input-1 Output Video Switch)



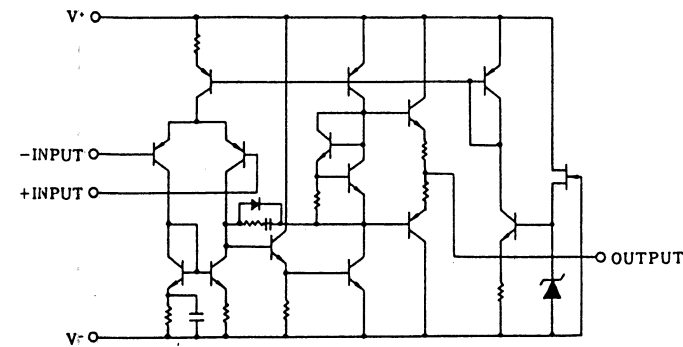
TRUTH TABLE

SW1	SW2	OUT
L	L	IN1
H	L	IN2
—	H	IN3

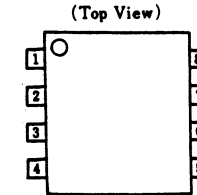
■ NJM2068MD [JRC]
(Dual Low-Noise Op.Amp)



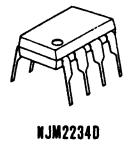
1. A OUTPUT
2. A-INPUT
3. A+INPUT
4. V-
5. B+INPUT
6. B-INPUT
7. B OUTPUT
8. V+



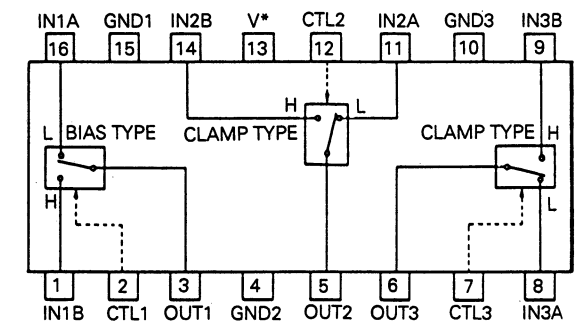
■ NJM2234M [JRC]
(3 Input Single Video Switch)



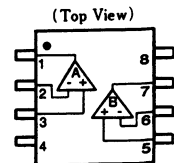
1. Vcc
2. SW1
3. SW2
4. Vcc
5. Vcc
6. Vcc
7. Vcc
8. GND



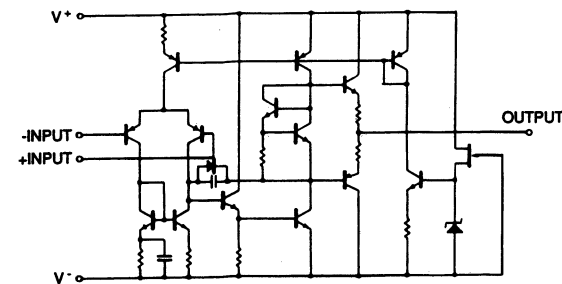
■ NJM2285M [JRC]
(Video Switch)



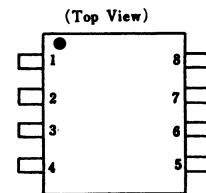
■ NJM4560D [JRC]
(Dual Op.Amp)



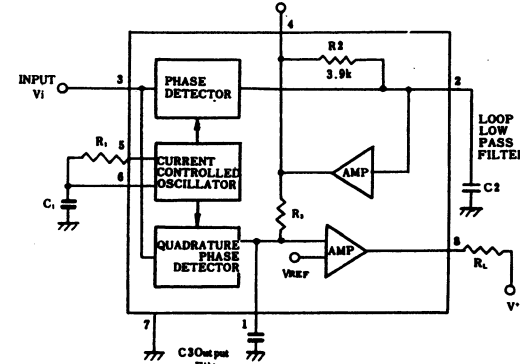
1. A OUTPUT
2. A-INPUT
3. A+INPUT
4. V-
5. B+INPUT
6. B-INPUT
7. B OUTPUT
8. V+



■ NJM567M [JRC]
(Tone Decoder)

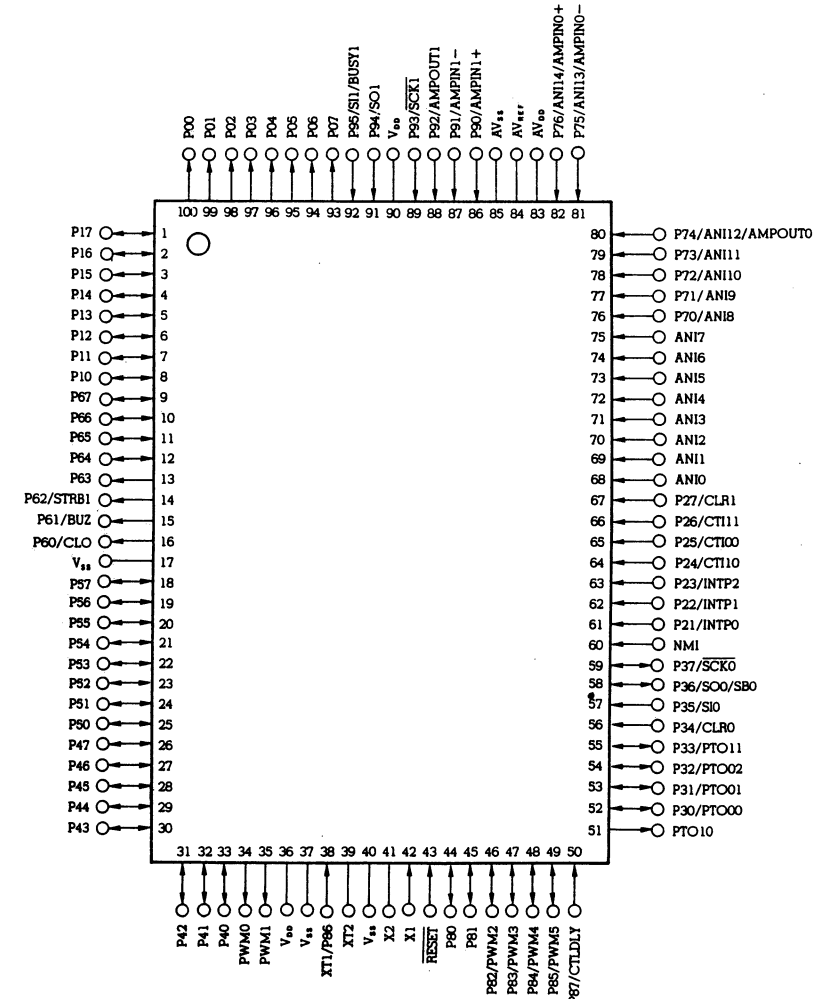


1. OUTPUT FILTER
2. LOW-PASS FILTER
3. INPUT
4. V*
5. TIMING R
6. TIMING CR
7. GROUND
8. OUTPUT

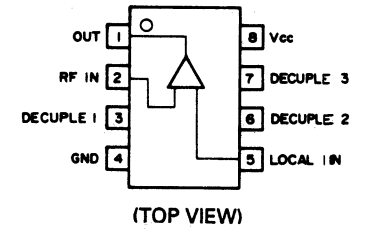


■ PGD30620C-XX-X [JVC]
(See M27C512-15F1.)

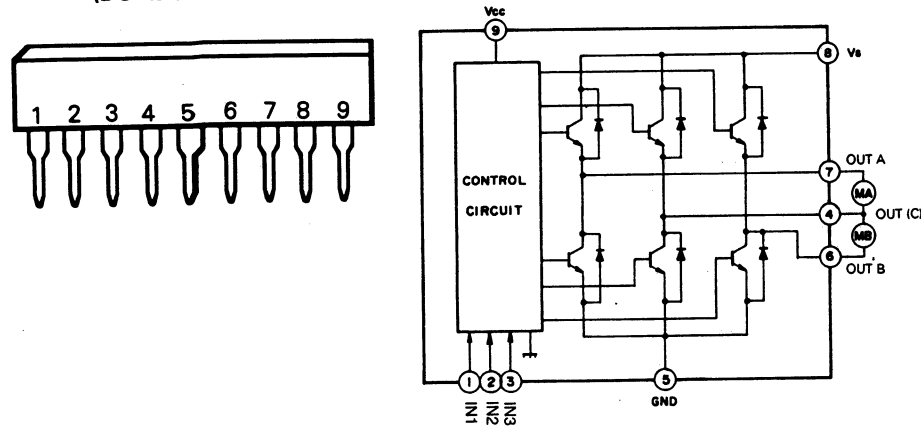
■ SC78148GF-026 [JVC]
(8-Bit Micro Computer)



■ SN16913P [TEXAS]
(Double Balanced Mixer)



■ TA8405S [TOSHIBA]
(DC Motor Driver)

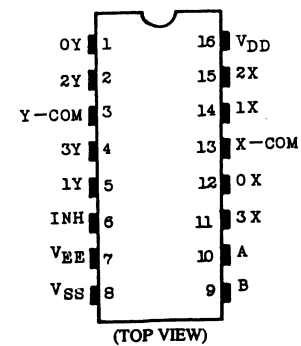


TRUTH TABLE

INPUT			INPUT			MODE	
IN 1	IN 2	IN 3	OUT (C)	OUT A	OUT B	MA	MB
0	0	1/0	*	*	*	STOP	STOP
1	0	0	H	L	*	CW/CCW	STOP
1	0	1	L	H	*	CCW/CW	STOP
0	1	0	H	*	L	STOP	CW/CCW
0	1	1	L	*	H	STOP	CCW/CW
1	1	1/0	L	L	L	BRAKE	BRAKE

*: High Impedance

■ TC4052BF [TOSHIBA]
(Dual 4 Channel Analog Multiplexers/
Demultiplexers)

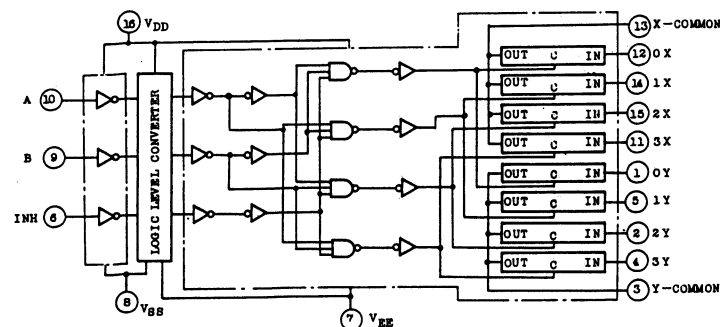


TRUTH TABLE

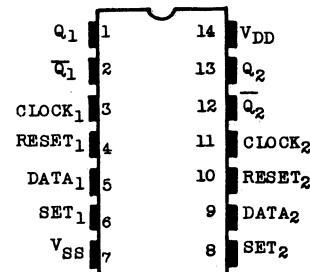
CONTROL INPUTS			"ON" CHANNEL	
INHIBIT	B	A	TC4052BP	TC4052BF
L	L	L	0X, 0Y	
L	L	H	1X, 1Y	
L	H	L	2X, 2Y	
L	H	H	3X, 3Y	
L	L	L	—	
L	L	H	—	
L	H	L	—	
L	H	H	—	
H	*	*	NO NE	

* Don't Care

LOGIC DIAGRAM

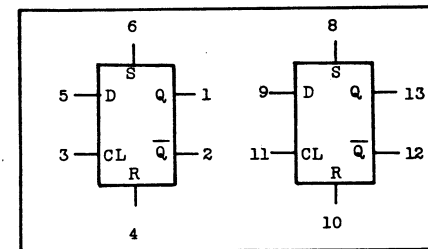


■ TC4013BF [TOSHIBA]
(Dual D-Type Flip Flop)



(TOP VIEW)

BLOCK DIAGRAM

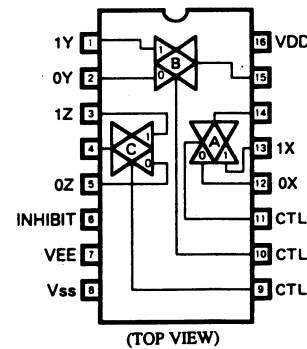


TRUTH TABLE

INPUTS				OUTPUTS	
RESET	SET	DATA	CLOCK Δ	Q _{n+1}	Q _{n+1} -bar
L	H	*	*	H	L
H	L	*	*	L	H
H	H	*	*	H	H
L	L	L	\downarrow	L	H
L	L	H	\downarrow	H	L
L	L	*	\downarrow	Q _n *	Q _n -bar*

*: Don't Care
 Δ : Level Change
 \downarrow : No Change

■ TC4053BF [TOSHIBA]
(Triple 2 Channel Analog Multiplexers/
Demultiplexers)



(TOP VIEW)

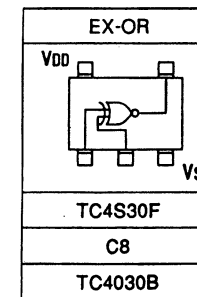
TRUTH TABLE

CONTROL INPUTS				"ON" CHANNEL	
INHIBIT	C	B	A	4053BP	4053BF
L	L	L	L	0X, 0Y, 0Z	
L	L	L	H	1X, 0Y, 0Z	
L	L	H	L	0X, 1Y, 0Z	
L	L	H	H	1X, 1Y, 0Z	
L	H	L	L	0X, 0Y, 1Z	
L	H	L	H	1X, 0Y, 1Z	
L	H	H	L	0X, 1Y, 1Z	
L	H	H	H	1X, 1Y, 1Z	
H	*	*	*	NOTE	

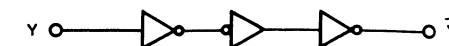
* Don't Care

■ TC4053BP [TOSHIBA]
(See TC4053BF.)

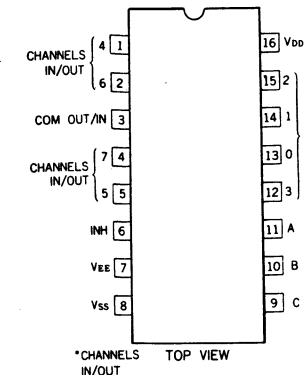
■ TC4S30F [TOSHIBA]
(Single Exclusive OR Gate)



■ TC4S69F [TOSHIBA]
(Inverter Gate)



■ TC4051BF [TOSHIBA]
(Single 8 Channel Analog Multiplexers/
Demultiplexers)

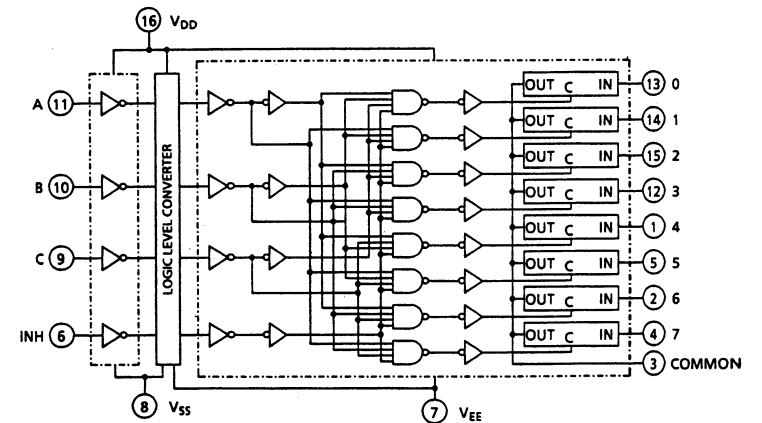


TRUTH TABLE

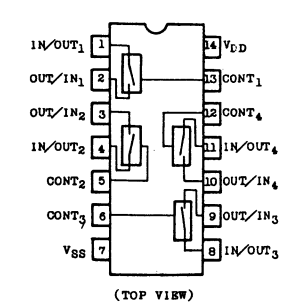
CONTROL INPUTS				"ON" CHANNEL	
INHIBIT	C	B	A	4051	
L	L	L	L	0	
L	L	L	H	1	
L	L	H	L	2	
L	L	H	H	3	
L	H	L	L	4	
L	H	L	H	5	
L	H	H	L	6	
L	H	H	H	7	
H	*	*	*	NONE	

* Don't Care

LOGIC DIAGRAM



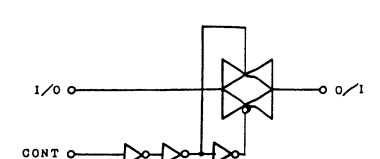
■ TC4066BP [TOSHIBA]
(Quad Bilateral Switch)



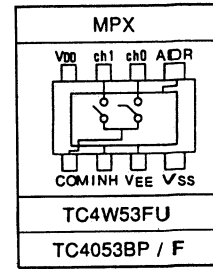
TRUTH TABLE

CONTROL	Impedance Between IN/OUT-OUT/IN *
H	0.5-5x10 ² Ω
L	>10 ⁹ Ω

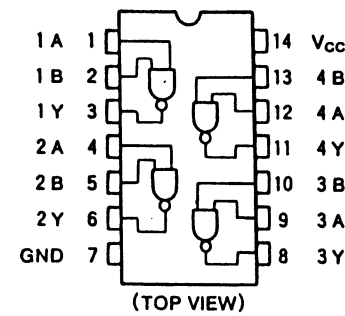
LOGIC DIAGRAM



■ TC4W53F [TOSHIBA]
(2-Channel Multiplexer)



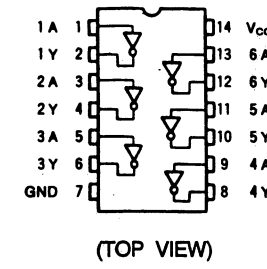
■ TC74HC00AF [TOSHIBA]
(Quad 2-Input NAND Gates)



TRUE Table

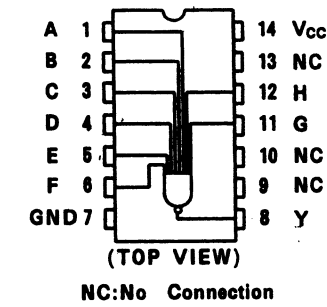
A	B	Y
L	L	H
L	H	H
H	L	H
H	H	L

■ TC74HC04AF [TOSHIBA]
(Hex Inverters)

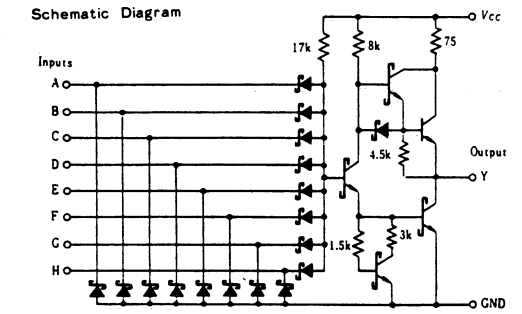


(TOP VIEW)

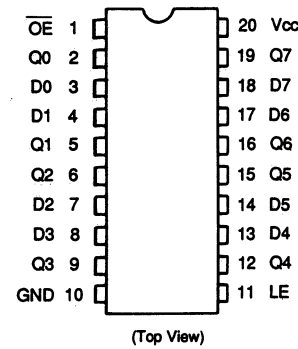
■ TC74HC30AF [TOSHIBA]
(8-Input NAND Gates)



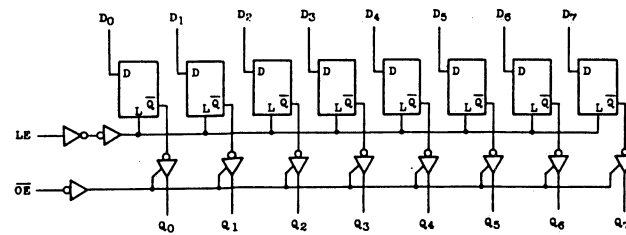
NC:No Connection



■ TC74HC373AF [TOSHIBA]
(Octal D-Type Latch With NON-Inverted 3-State Output)



(Top View)

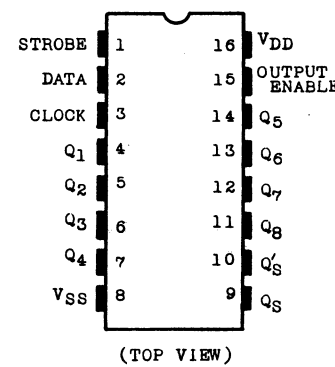


TRUE Table

INPUTS			OUTPUTS
OE	LE	D	
H	X	X	Z
L	L	X	Q _n
L	H	L	L
L	H	H	H

X : Don't Care
Z : Hi impedance
Q_n : Q output level before the LE become "L".

■ TC74HC4094AF [TOSHIBA]
(8 Stage Bus Compatible Shift/Store Register)



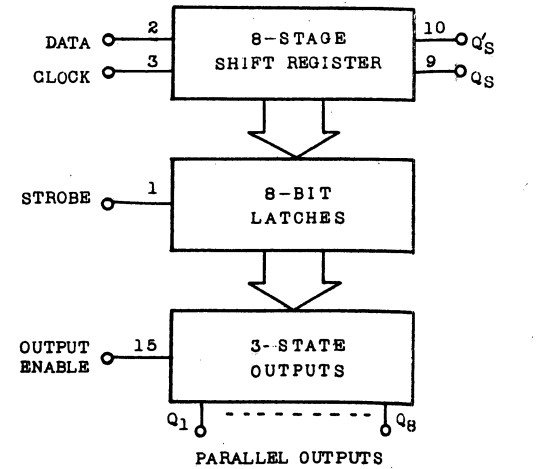
(TOP VIEW)

TRUTH TABLE

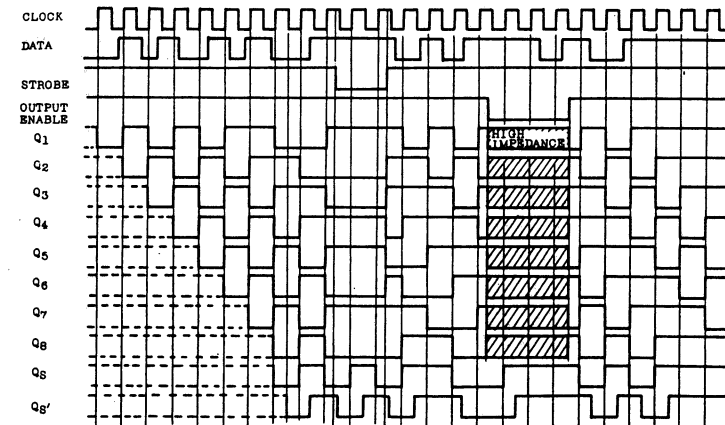
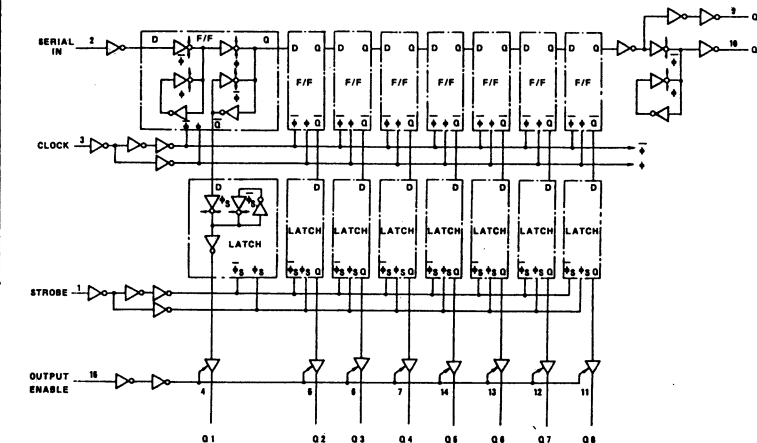
GL	OE	ST	D	PO		SO	
				Q ₁	Q _n	Q _S	Q _S
L	H	H	L	Q _{n-1}	Q ₇	NC	NC
L	H	H	H	Q _{n-1}	Q ₇	NC	NC
L	H	L	*	NC	NC	Q ₇	NC
L	L	*	*	HZ	HZ	Q ₇	NC
L	H	*	*	NC	NC	NC	Q _S
L	L	*	*	HZ	HZ	NC	Q _S

GL = Clock * = Don't care
OE = Output Enable NC = No Change
ST = Strobe HZ = High Impedance
D = Data
PO = Parallel Outputs
SO = Serial Output

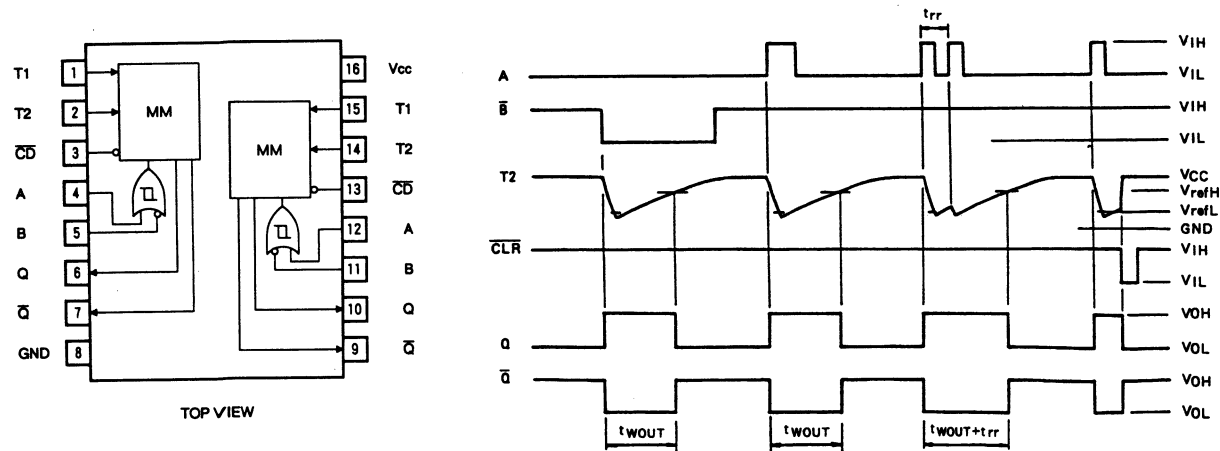
BLOCK DIAGRAM



SERIAL OUTPUT



■ **TC74HC4538AF** [TOSHIBA]
(Dual Retriggerable Monostable Multivibrator)

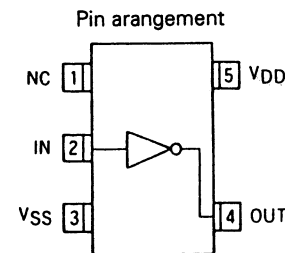


TRUE Table

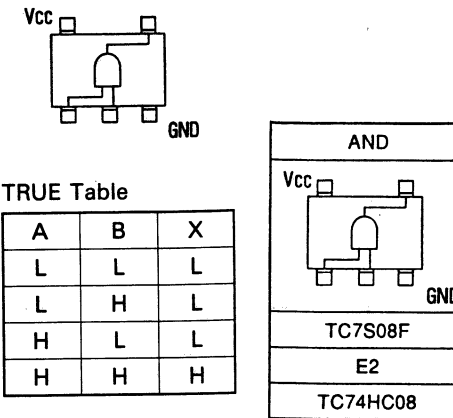
INPUT			OUTPUT		NOTE
A	B	CD	Q	Q̄	
	H	H			OUTPUT ENABLE
X	L	H	L	H	INHIBIT
H	X	H	L	H	INHIBIT
L		H			OUTPUT ENABLE
X	X	L	L	H	INHIBIT

X: Don't Care

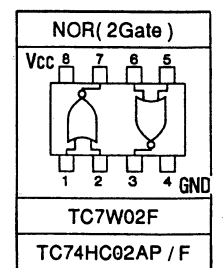
■ **TC7S04F** [TOSHIBA]
(Inverter)



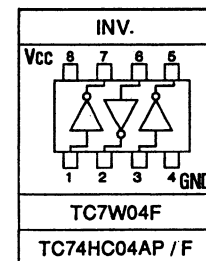
■ **TC7S08F** [TOSHIBA]
(2 Input Single AND Gate)



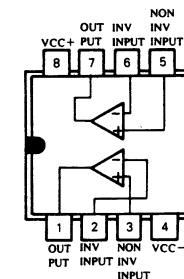
■ **TC7W02F** [TOSHIBA]
(2 Input Dual NOR Gate)



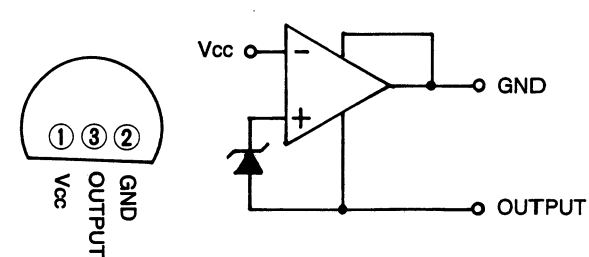
■ **TC7W04F** [TOSHIBA]
(Triple Inverter Gate)



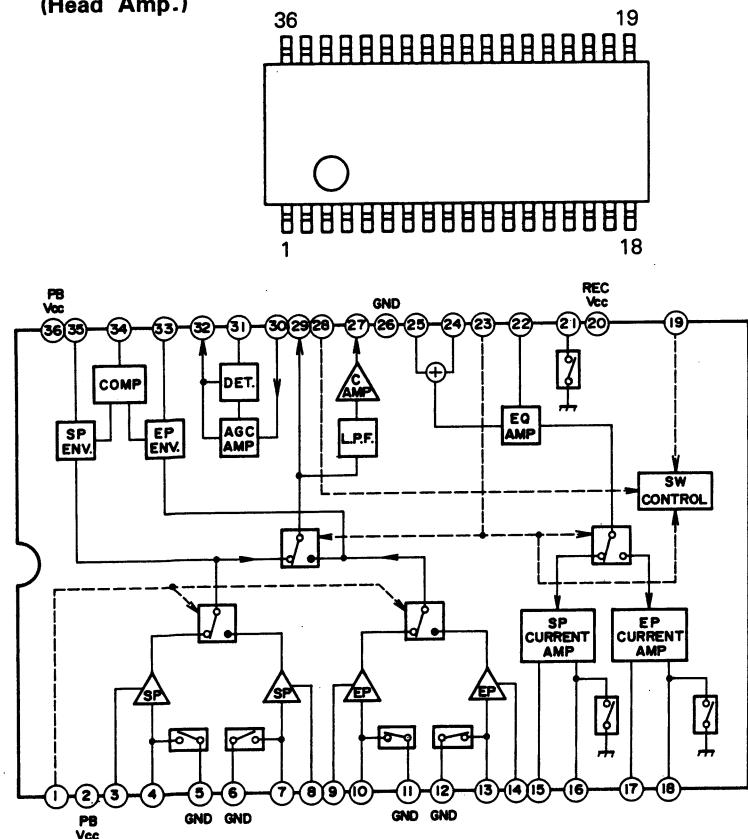
■ **TL082CPS** [TEXAS]
(JG OR P Dual-In-Line Package)



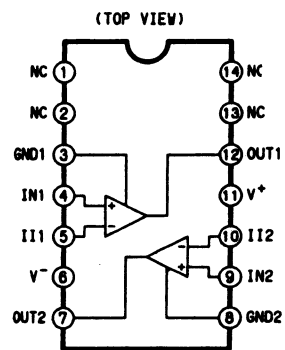
■ **TL431CLP** [TOSHIBA]
(Voltage Regulator)



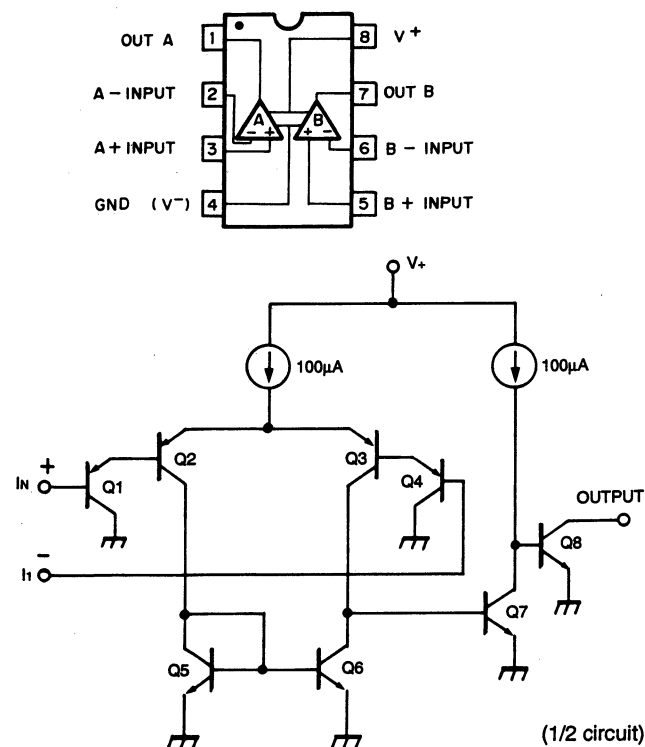
■ **UPC2320GS** [NEC]
(Head Amp.)



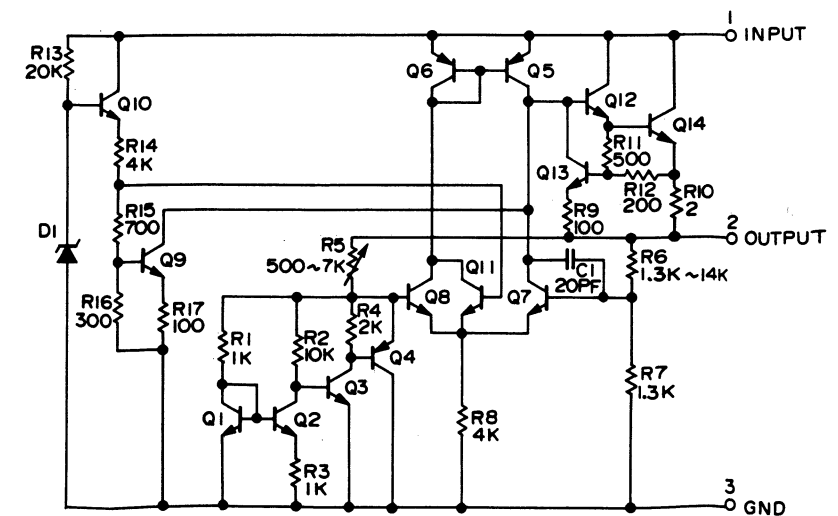
■ **UPC319G2** [NEC]
(Dual Comparator)



■ **UPC393C** [NEC]
(Dual Comparator)



■ **UPC78L05T** [NEC]
(Regulator)



A diagram of a 3-pin DIN connector. The connector has a rectangular body with a circular hole on top. Three pins extend from the bottom. The pins are labeled from left to right: GND, -INPUT, and OUTPUT.



INPUTS						OUTPUTS								SELECTED OUTPUT
ENABLE			SELECT			$\overline{Y_0}$	$\overline{Y_1}$	$\overline{Y_2}$	$\overline{Y_3}$	$\overline{Y_4}$	$\overline{Y_5}$	$\overline{Y_6}$	$\overline{Y_7}$	
G1	G2A	G2B	C	B	A									
L	X	X	X	X	X	H	H	H	H	H	H	H	H	NONE
X	H	X	X	X	X	H	H	H	H	H	H	H	H	NONE
X	X	H	X	X	X	H	H	H	H	H	H	H	H	NONE
H	L	L	L	L	L	L	H	H	H	H	H	H	H	$\overline{Y_0}$
H	L	L	L	L	H	H	L	H	H	H	H	H	H	$\overline{Y_1}$
H	L	L	L	H	L	H	H	L	H	H	H	H	H	$\overline{Y_2}$
H	L	L	L	H	H	H	H	H	L	H	H	H	H	$\overline{Y_3}$
H	L	L	H	L	L	H	H	H	H	L	H	H	H	$\overline{Y_4}$
H	L	L	H	L	H	H	H	H	H	H	L	H	H	$\overline{Y_5}$
H	L	L	H	H	L	H	H	H	H	H	H	L	H	$\overline{Y_6}$
H	L	L	H	H	H	H	H	H	H	H	H	H	L	$\overline{Y_7}$

X : DONT' CARE

(TOP VIEW)

TRUE Table

INPUTS			OUTPUTS
\overline{OE}	LE	D	Q
H	X	X	HZ
L	L	X	Q_n
L	H	L	L
L	H	H	H

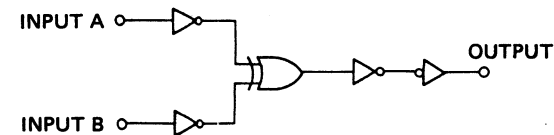
X : Don't care.
Z : Hi impedance
Q_n : Level of Q output before LE becomes "L".

TRUTH TABLE

INPUT		OUTPUT
A	B	X
L	L	L
L	H	H
H	L	H
H	H	L

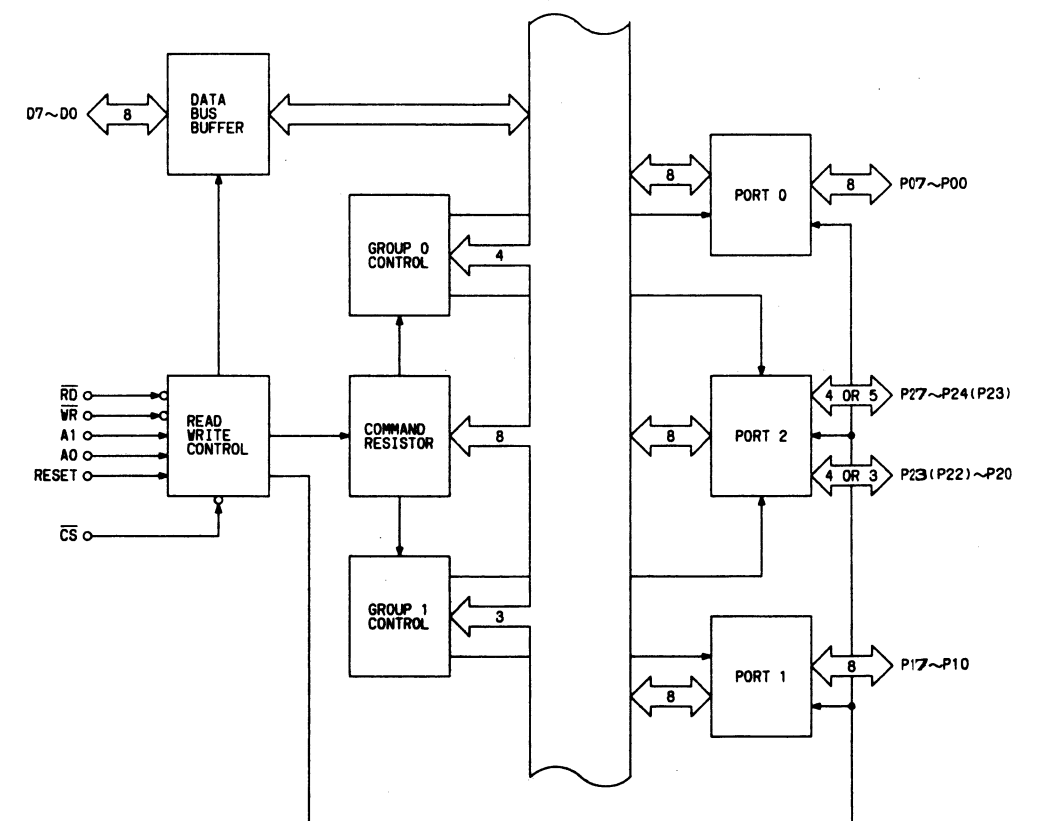
TOP VIEW

BLOCK DIAGRAM



4-84

Pin diagram of the μ PD71055GB-10-3B4 microcontroller. The chip is shown with pins 1 through 44. Pin 1 is NC, Pin 2 is CS, Pin 3 is GND, Pin 4 is A1, Pin 5 is A0, Pin 6 is P27, Pin 7 is P26, Pin 8 is P25, Pin 9 is P24, Pin 10 is P20, Pin 11 is P21, Pin 12 is P22, Pin 13 is P23, Pin 14 is P24, Pin 15 is P25, Pin 16 is P26, Pin 17 is P27, Pin 18 is P28, Pin 19 is P29, Pin 20 is P30, Pin 21 is P31, Pin 22 is P32, Pin 23 is V_{cc}, Pin 24 is D7, Pin 25 is D6, Pin 26 is D5, Pin 27 is D4, Pin 28 is D3, Pin 29 is D2, Pin 30 is D1, Pin 31 is D0, Pin 32 is RESET, Pin 33 is NC, Pin 34 is P34, Pin 35 is P35, Pin 36 is P36, Pin 37 is P37, Pin 38 is P38, Pin 39 is P39, Pin 40 is P40, Pin 41 is P41, Pin 42 is P42, Pin 43 is P43, Pin 44 is P44. The chip is labeled μ PD71055GB-10-3B4.



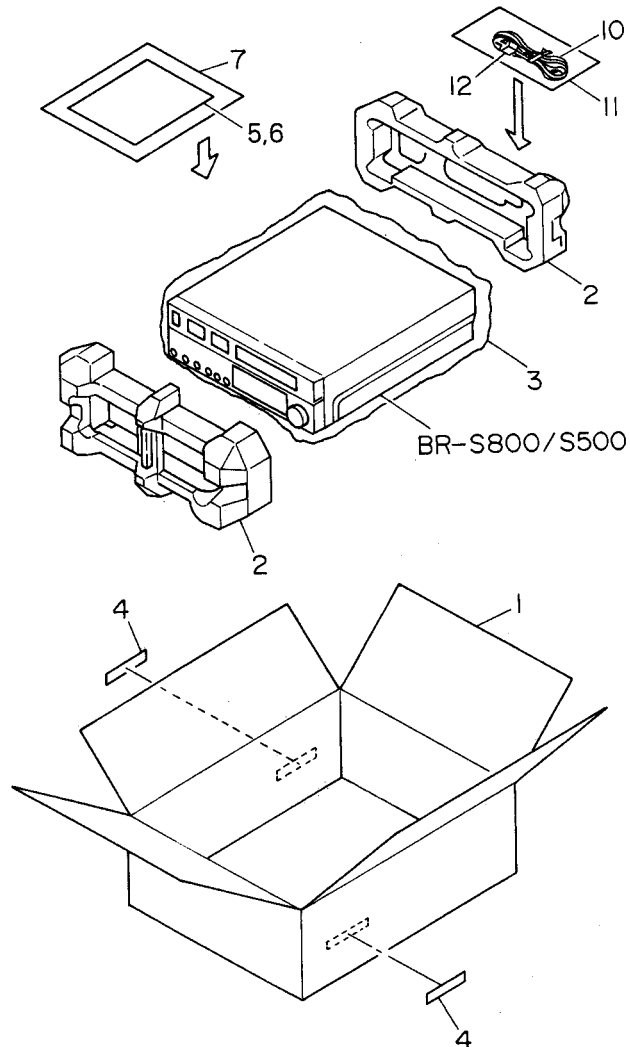
4-84

SECTION 5 EXPLODED VIEWS AND PARTS LIST

SAFETY PRECAUTION

Parts identified by the \triangle symbol are critical for safety. Replace only with specified part numbers.

5.1 PACKING assembly $\boxed{M}\boxed{1}$



PACKING ASSEMBLY $\boxed{M}\boxed{1}$

$\boxed{M}\boxed{1}\boxed{M}\boxed{M}\boxed{}\boxed{}\boxed{}\boxed{}$

\triangle REF No.	PART No.	PART NAME, DESCRIPTION
1	PRD20487-05-06	PACKING CASE, BR-S800E
1	PRD20487-06-06	PACKING CASE, BR-S500E
2	PRD10321A	CUSHION ASSY
3	PUM30021-24	POLY BAG
4	PUP40329	SERIAL NO. STICKER, $\times 2$
5	SL96002	INSTRUCTIONS
6	SL96015	INSTRUCTIONS
7	QPGA025-03505	POLY BAG
\triangle 10	QMP4250-250	POWER CORD
11	QPGB020-02804	POLY BAG
12	PUP40003-7	AIR CAP

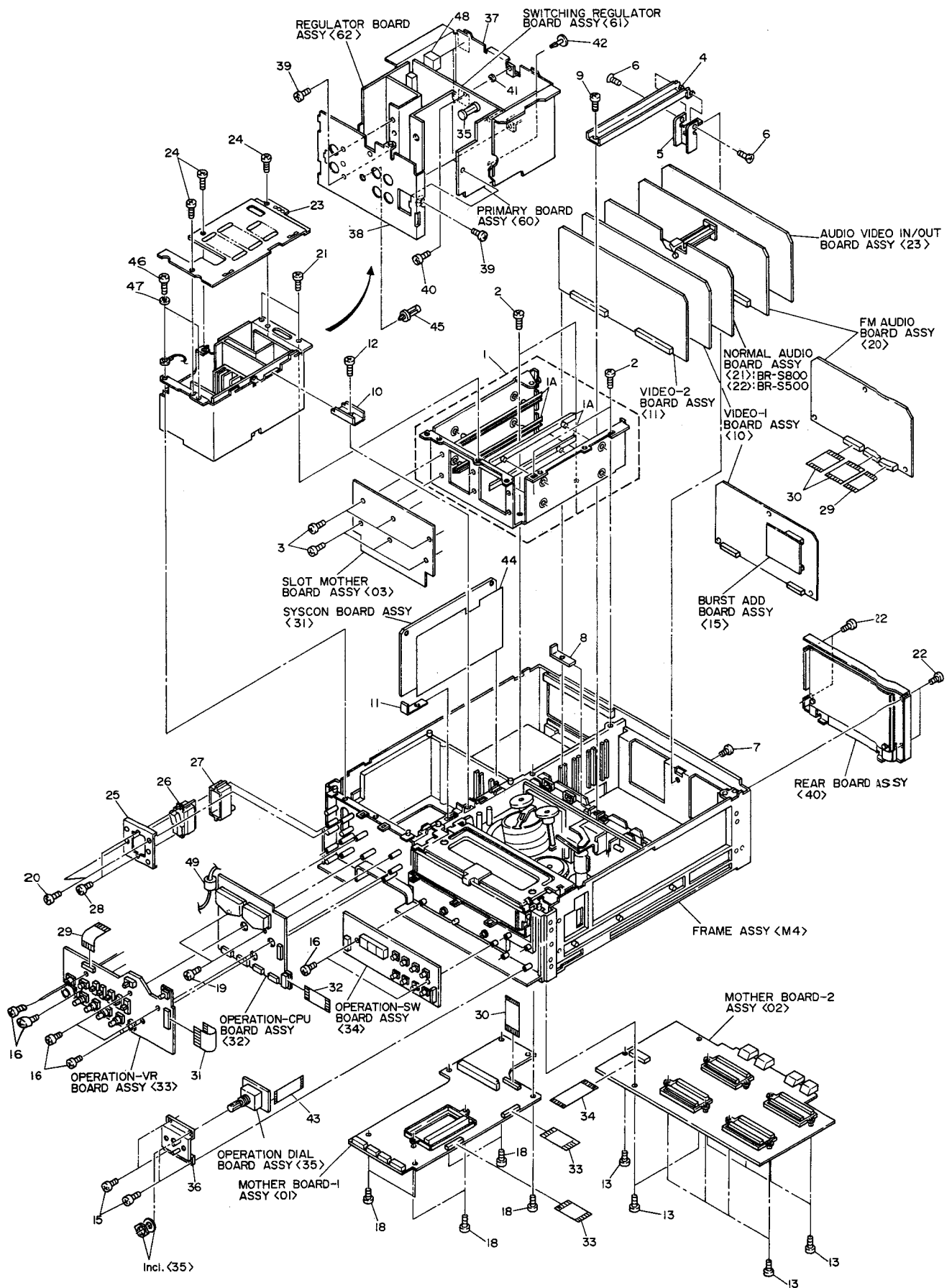
M 2



CABINET ASSEMBLY
M 2 M M

△ REF No.	PART No.	PART NAME, DESCRIPTION
1	PRD10320E-08	FRONT PANEL ASSY, BR-S800E
1	PRD10320F-08	FRONT PANEL ASSY, BR-S500E
2	PRD30889-01-02	KNOB (VR)
3	PRD30029-08	WASHER
4	PRD42830	SLIDE KNOB, ×5 BR-S800E, ×4 BR-S500E
5	PRD43146	KNOB PLATE, ×5 BR-S800E, ×4 BR-S500E
6	PRD43835	KNOB (TRACKING)
7	PRD42909-04	KNOB PLATE
8	PGD40035A-1	SEARCH KNOB ASSY
9	PRD31027	KNOB (VR), ×5 BR-S800E, ×1 BR-S500E
10	QZF2319-001	FOOT, ×4
11	SDSF3020Z	SCREW, ×4
△ 12	PRD10313	BOTTOM COVER
13	SDSF3010Z	SCREW, ×3
14	SDSP3006Z	SCREW
15	PRD20498A-01	TOP COVER ASSY
△ 15A	PRD10310-01-02	TOP COVER
15B	PRD44308	SHADE
16	PGD40255	SPACER, ×2
17	PRD30088-03	COIN SCREW, ×2
△ 18	PRD10311-01-02	SIDE PANEL (LEFT)
19	SXST4008NW	SPECIAL SCREW, ×4
△ 20	PRD10312-01-02	SIDE PANEL (RIGHT)
21	SXST4008NW	SPECIAL SCREW, ×4
22	PRD31013	PANEL (SLOT), ×2
23	SDSP3014R	SCREW, ×4
△ 24	PRD30085-38-22	RATING LABEL, BR-S800E
△ 24	PRD30085-39-22	RATING LABEL, BR-S500E
25	PQ40111-1-5	SERIAL NO PLATE
27	PRD44337-02	INFORMATION LABEL

5.3 CHASSIS assembly M 3

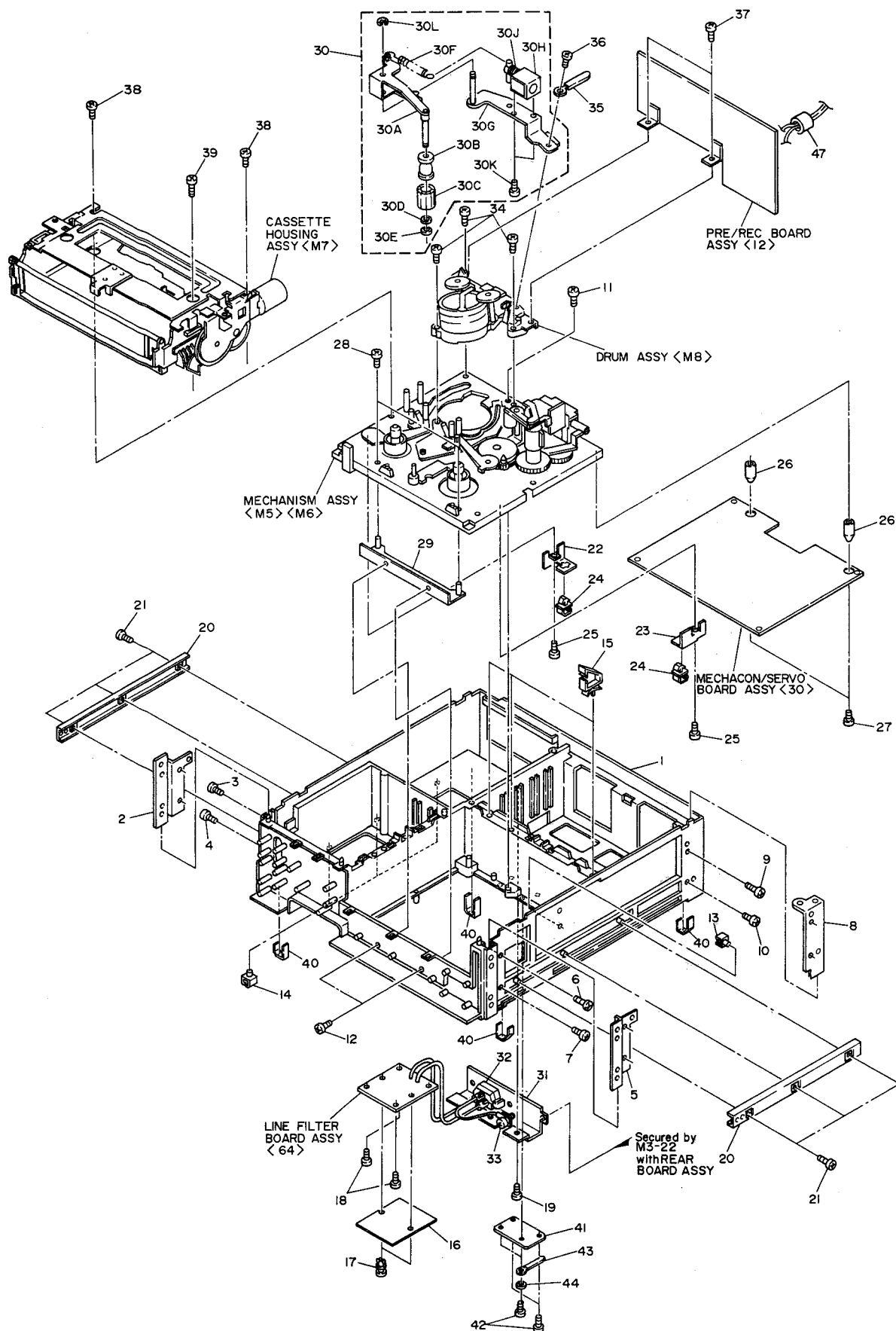


CHASSIS ASSEMBLY M3

M3MM□□□□

△ REF No.	PART No.	PART NAME, DESCRIPTION	
1	PRD20491A-01	HOLDER ASSY	
1A	PGZ00493-03	GUIDE RAIL, ×4	
2	SDSF3010Z	SCREW, ×4	
3	SDST3006Z	SCREW, ×6	
4	PRD31022-01-02	HOLDER (A)	
5	PRD44249	BRACKET (BOARD HOLDER)	
6	YQ40689	SPECIAL SCREW, ×2	
7	SDST2606Z	SCREW	
8	PRD44250	LEVER	
9	SDSP3010Z	SCREW	
10	PRD44252	HOLDER (B)	
11	PRD44250	LEVER	
12	SDSP3010Z	SCREW	
13	SDSF3010Z	SCREW, ×11	
15	SDSF3010Z	SCREW, ×4	
16	SDSF3010Z	SCREW, ×8	
18	SDSF3010Z	SCREW, ×7	
19	SDSF3010Z	SCREW, ×2	
20	SDSF3010Z	SCREW, ×2	
21	PRD44050-05	SCREW, ×2	
22	SDSF3010R	SCREW, ×4	
23	PRD31024	CASE2	
24	PRD44050-05	SCREW, ×3	
25	PRD44222	BRACKET (POWER SWITCH)	
△ 26	QSE2A21-L01	POWER SWITCH	
△ 27	PRD42023	SWITCH COVER	
28	LPSP3006Z	ASSY SCREW, ×2	
29	PGW0206-050180	FFC, ×2	
30	PGW0206-050300	FFC, ×3	
31	PGW0206-040180	FFC	
32	PGW0206-050240	FFC	
33	PGW0206-090180	FFC, ×2	
34	PGW0206-140300	FFC	
△ 35	QMF51E2-1R6	FUSE, (F001)	T1.6A
36	PRD44221	BRACKET, (SEARCH)	
37	PRD20489	CASE1	
38	PRD31019-01-03	HEAT SINK	
39	PRD44050-05	SCREW, ×3	
40	PRD44050-05	SCREW, ×2	
41	WBS3000N	WASHER	
42	PU60010-3	SPACER, ×2	
43	PGW0109-90AC556	FLAT WIRE	
44	PRD44318	SHIELD PLATE, INCLUDED IN <31>	
45	PGZ01128-02	SPACER	
46	SDSF3016Z	SCREW, ×2	
47	WLS3000N	LOCK WASHER, ×2	
48	PRD30030-132	PAD, ×2	
49	PGZ01229	FERRITE CORE	
50	PRK10163A-03	SWITCHING REGULATOR ASSEMBLY	

5.4 FRAME assembly M4

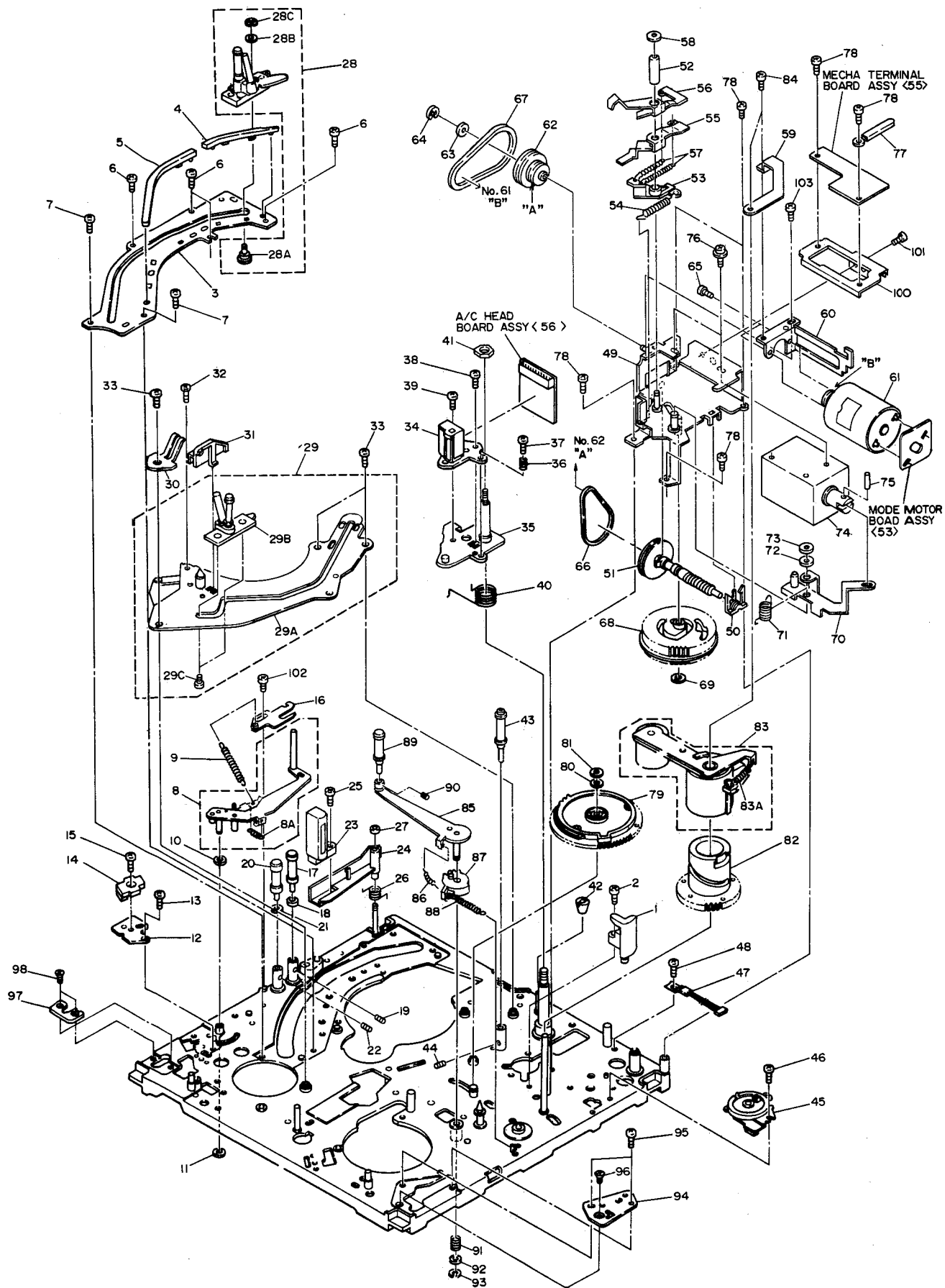


FRAME ASSEMBLY M4

M 4 M M □ □ □ □

△ REF No.	PART No.	PART NAME, DESCRIPTION
△ 1	PRD10319-01-03	BOTTOM CHASSIS
2	PRD31000	BRACKET (FRONT-LEFT)
3	SSSP3006Z	SCREW
4	SDSP3006Z	SCREW
5	PRD31000-02	BRACKET (FRONT-RIGHT)
6	SSSP3006Z	SCREW
7	SDSP3006Z	SCREW
8	PRD30999	BRACKET (REAR)
9	SSSP3006Z	SCREW
10	SDSP3006Z	SCREW
11	SDSF4025Z	SCREW
12	DPSP4010Z	SCREW, ×2
13	PU48016-2	MINI CLAMP
14	PU59311-3	WIRE CLAMP, ×3
15	PGZ00452	L WIRE SADOLE, ×3
16	PRD44271	INSULATOR
17	PGZ01951	PLASTIC RIVET, ×2
18	SDSF3010R	SCREW, ×2
19	SDSP3006Z	SCREW
20	PRD31016	BRACKET (RACK RAIL), ×2
21	SDSF3010Z	SCREW, ×6
22	PRD44274	HINGE L
23	PRD44275	HINGE R
24	PGZ00606-03	BOARD HOLDER, ×2
25	SDST2605Z	SCREW, ×2
26	PGZ01961	SNAP COLLAR, ×2
27	SSSG2622Z	SCREW, ×2
28	PRD30082-02	FLANGE SCREW, ×2
29	PRD31017A	BRACKET ASSY
30	PRD30797B	HEAD CLEANER ASSY
30A	PRD43590B	CLEANER ARM SUB ASSY
30B	PQ45689	ROLLER
30C	PQ44837	CLEANER
30D	Q03093-829	WASHER
30E	PQM30017-25	SLIT WASHER
30F	PRD30024-62	TENSION SPRING
30G	PRD43591B	CLEANER BRACKET ASSY
△ 30H	PGZ01973	SOLENOID
30J	PRD30023-36	COMPRESSION SPRING
30K	SPSP2003Z	SCREW, ×2
30L	REE2500	"E" RING
31	PRD31004-03	BRACKET (AC INLET)
△ 32	PGZ01945	AC INLET
33	LPSP4006Z	SCREW
34	LPSP2612Z	SCREW, ×3
35	PU49485-4	WIRE CLAMP
36	DPSP2606Z	SCREW
37	PRD44050-02	SCREW, ×2
38	PRD30027-04	SPECIAL SCREW, ×2
39	SDSP2608Z	SCREW
40	PRD30030-128	PAD, ×4
41	PRD44317	BRACKET
42	SDSF3010Z	SCREW, ×4
43	PU49485-4	WIRE CLAMP, ×2
44	WLS3000N	LOCK WASHER, ×2
47	PU58903	FERRITE CORE

5.5 MECHANISM-1 assembly M 5



MECHANISM-1 ASSEMBLY M5

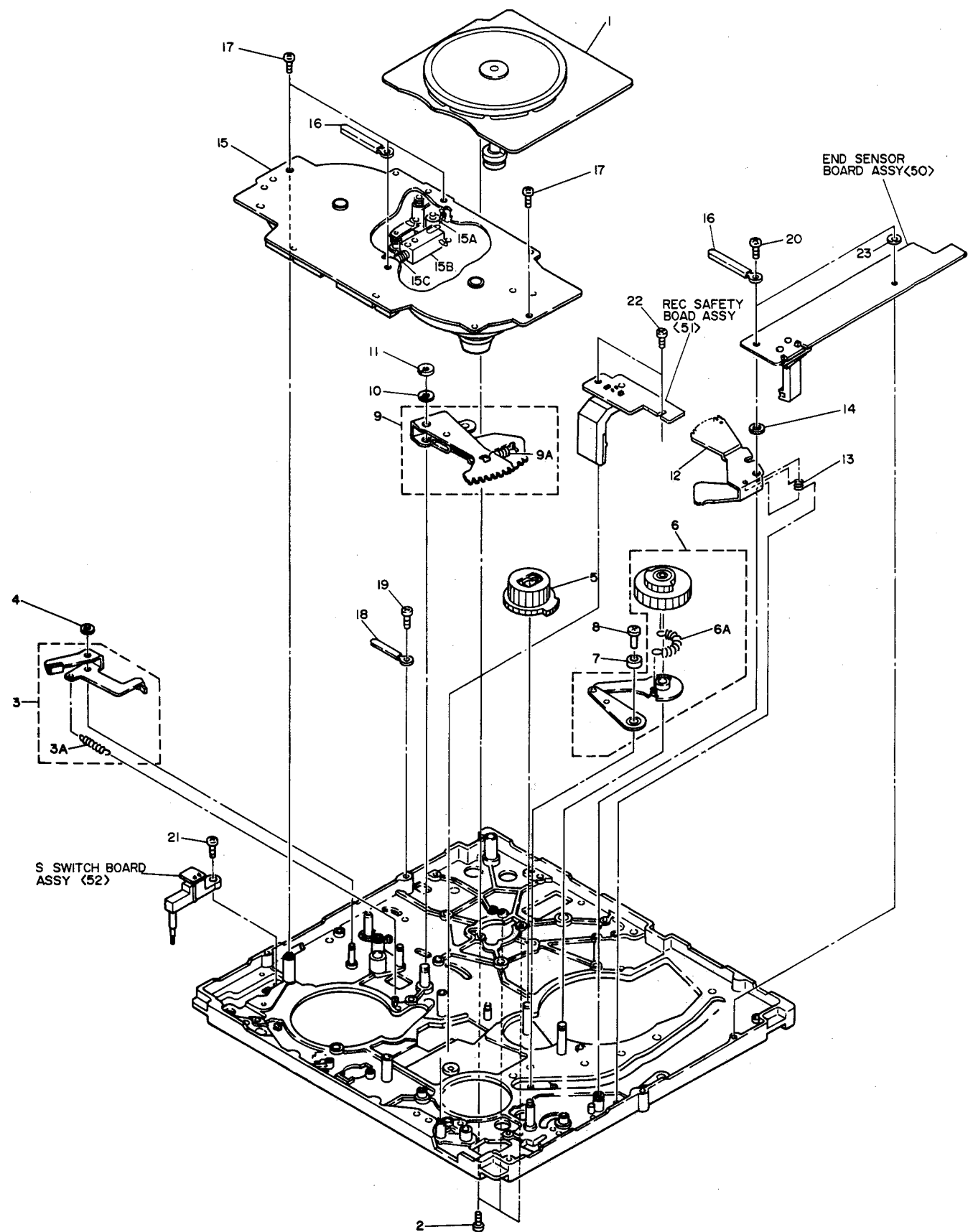
M5MM

REF No.	PART No.	PART NAME, DESCRIPTION
1	PRD44121-01-01	ARM GUIDE
2	SDST2606Z	SCREW
3	PRD30806-01-02	SUB DECK (SUPPLY)
4	PQ33995	GUIDE RAIL-2 (SUPPLY)
5	PRD30808	GUIDE RAIL-1 (SUPPLY)
6	SDST2605M	SCREW, ×4
7	SDSP2603.5M	SCREW, ×2
8	PRD43638A-01	TENSION ARM ASSY
8A	PQM30001-345	TENSION SPRING
9	PRD43935	TENSION SPRING
10	Q03093-838	WASHER
11	PQM30017	SLIT WASHER
12	PRD43466-01-02	TENSION SENSOR BASE
13	SDSP2003Z	SCREW
14	PU61338	TENSION SENSOR
15	SDSP2604Z	SCREW
16	PRD43902A	SPRING ADJUST ASSY
17	PRD43721A	GUIDE ROLLER ASSY
18	PQ45294	"O" RING
19	YFS2603B	SPECIAL SCREW
20	PRD43721A	GUIDE ROLLER ASSY
21	PQ45294	"O" RING
22	PQ45295	SPECIAL SCREW
23	PGZ01841	FULL ERASE HEAD, BR-S800E
24	PRD30817	FE HEAD ARM, BR-S800E
25	SDSF2608M	SCREW, BR-S800E
26	PRD44149	TORSION SPRING, BR-S800E
27	PQM30017-6	SLIT WASHER, BR-S800E
28	PRD30809A	POLE BASE (SUPPLY) ASSY
28A	PRD43671-01-02	STOPPER (SUPPLY)
28B	Q03093-829	WASHER
28C	REE1500	"E" RING
29	PRD44032A-01	LOADING (TAKE-UP) ASSY
29A	PRD43627A	GUIDE RAIL (TAKE-UP) ASSY
29B	PRD30811A-02	POLE BASE (TAKE-UP) ASSY
29C	PRD43819-02	SPECIAL SCREW, ×2
30	PRD44276	EARTH PLATE
31	PRD44268	TAPE GUIDE
32	SDSP2603.5M	SCREW
33	SDST2605M	SCREW, ×3
34	PGZ01840	AUDIO/CONTROL HEAD
35	PRD44127A	HEAD ARM ASSY
36	PQM30002-197	COMPRESSION SPRING
37	SDSP2612Z	SCREW
38	PQ44621	SPECIAL SCREW
39	PQ43687B	SPECIAL SCREW
40	PQ44119	TORSION SPRING
41	PQ40353	NYLON NUT
42	PRD44241	TAPER NUT
43	PRD44151A-01	GUIDE ROLLER ASSY
44	PQ45295	SPECIAL SCREW
45	PU61339-1-1	ROTARY ENCORDER
46	SDSP2004Z	SCREW
47	PU61357	DEW SENSOR
48	SDSP2604Z	SCREW
49	PRD44105A	SOLENOID BRACKET ASSY
50	PQ44129	WORM BEARING-2

M5MM

REF No.	PART No.	PART NAME, DESCRIPTION
51	PRD44122A	WORM GEAR ASSY
52	PRD44108	COLLAR
53	PQ33992-1-1	LOCK LEVER 1
54	PQM30001-313	TENSION SPRING
55	PRD44107	LOCK LEVER 2
56	PRD30971-01-01	LOCK LEVER 3
57	PQM30001-314	TENSION SPRING, ×2
58	PQM30017-6	SLIT WASHER
59	PRD44103	ARM
60	PRD30969	MOTOR BRACKET
61	PRD44123A	MODE MOTOR ASSY
62	PRD43968	CONNECT PULLEY
63	Q03093-829	WASHER
64	REE1200	E RING
65	SPSP3003Z	SCREW, ×2
66	PRD30022-17	BELT
67	PRD30022-18	BELT
68	PQ21313-1-1	CAM GEAR
69	PQM30017-12	SLIT WASHER
70	PRD44106A	SOLENOID LEVER ASSY
71	PRD44113	TORSION SPRING
72	Q03093-818	WASHER
73	PQM30017-12	SLIT WASHER
74	PGZ01845	SOLENOID
75	PSE3010	SPRING PIN
76	DPSP3005Z	SCREW, ×2
77	PU49485-4	WIRE CLAMP
78	SDST2605Z	SCREW, ×6
79	PQ21315-1-2	CONTROL CAM
80	Q03093-849	WASHER
81	PQM30017-28	SLIT WASHER
82	PQ21312	PINCH ROLLER CAM
83	PRD43387A-01	PINCH ROLLER ARM ASSY
83A	PRD30024-60	TENSION SPRING
84	SDST2606Z	SCREW, ×2
85	PRD43658A	GUIDE ARM SUB ASSY
86	PRD30023-54	COMPRESSION SPRING
87	PRD44039	GUIDE ARM GEAR
88	PRD30024-67	TENSION SPRING
89	PRD43660A-02	GUIDE ROLLER ASSY
90	YFS2003B	SET SCREW
91	PRD30023-55	COMPRESSION SPRING
92	WSS3000Z	WASHER
93	PQM30017-13	SLIT WASHER
94	PRD43889	SOCKET R
95	SDSP2605Z	SCREW, ×2
96	SSSP2606Z	SCREW
97	PRD43890	SOCKET L
98	SDSP2605Z	SCREW, ×2
100	PRD31029	DECK TERMINAL BOARD STAY
101	SDST2605Z	SCREW
103	SDSP2604Z	SCREW

5.6 MECHANISM-2 assembly M 6



MECHANISM-2 ASSEMBLY ☒ 6☒ 6 ☒ M ☒ M ☐ ☐ ☐ ☐

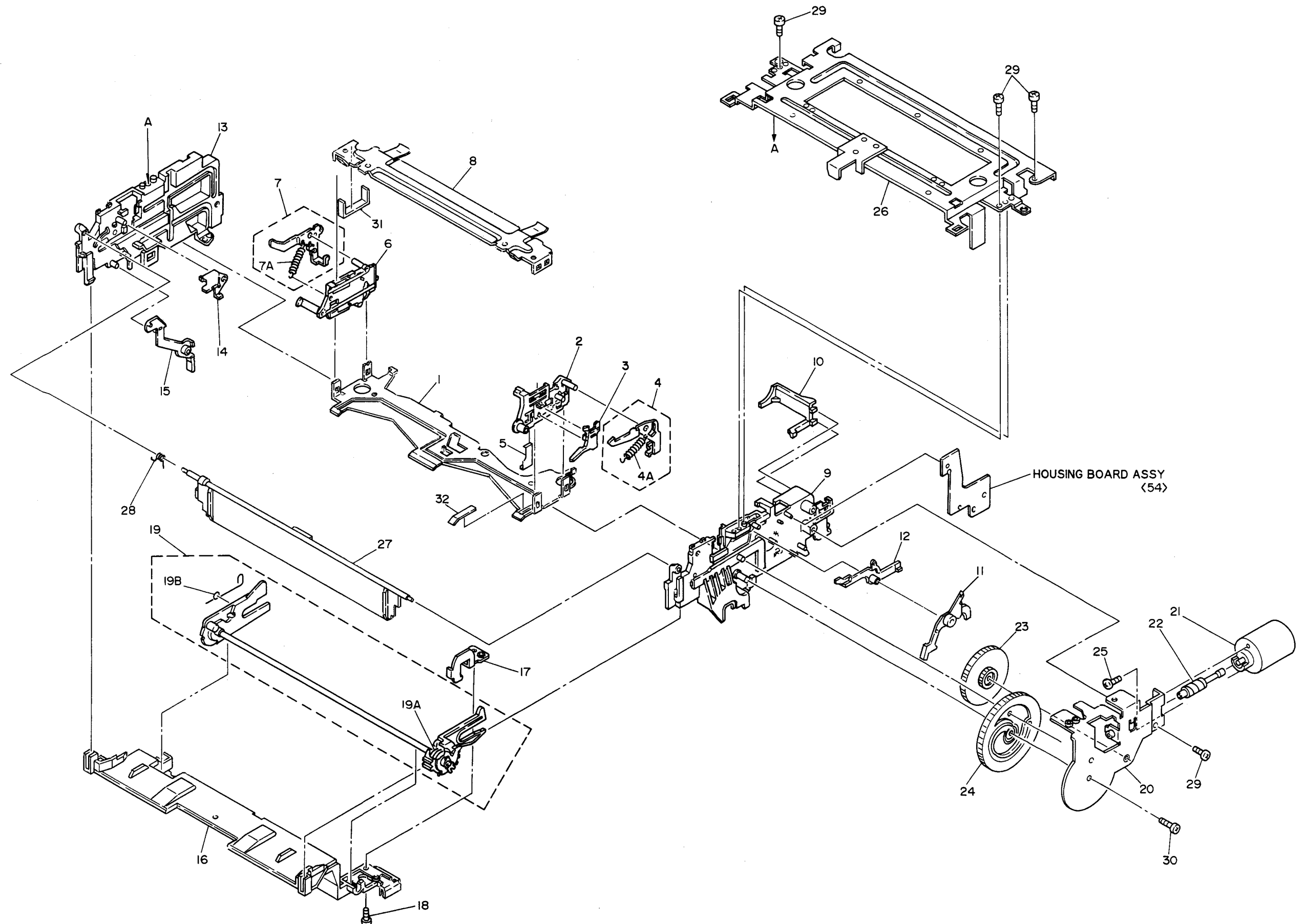
<input checked="" type="checkbox"/> REF No.	PART No.	PART NAME, DESCRIPTION
<input checked="" type="checkbox"/> 1	PGZ01535-01-01	CAPSTAN MOTOR
2	SDSP2608Z	SCREW, × 3
3	PRD43479A-01	REEL BRAKE ASSY
3A	PRD30024-58	TENSION SPRING
4	PQM30017-6	SLIT WASHER
5	PQ34033	LOADING GEAR (TAKE UP)
6	PRD43923A	LOADING GEAR (SUPPLY) ASSY
6A	PQM30001-318	TENSION SPRING
7	PRD44019	COLLAR
8	PRD44287	SPECIAL SCREW
9	PQ45306B-3	ARM GEAR ASS'Y
9A	PQM30001-320	TENSION SPRING
10	Q03093-833	WASHER
11	REE3000	"E"RING
12	PQ34007	CANCEL LEVER
13	PQ45313	TORSION SPRING
14	PQM30017-12	SLIT WASHER
<input checked="" type="checkbox"/> 15	PGZ01958A	REEL MOTOR
15A	PGZ01958-001	LED HOLDER ASSY
15B	PGZ01958-002	SOLENOID
15C	PGZ01958-003	COMPRESSION SPRING
16	PU49485-4	WIRE CLAMP, × 3
17	SDST2605Z	SCREW, × 4
18	PU49485-4	WIRE CLAMP
19	SDST2605Z	SCREW
20	DPSP2606Z	SCREW, × 2
21	SDST2605Z	SCREW
22	SDST2605Z	SCREW
23	Q03093-826	WASHER

CASSETTE HOUSING ASSEMBLY M7

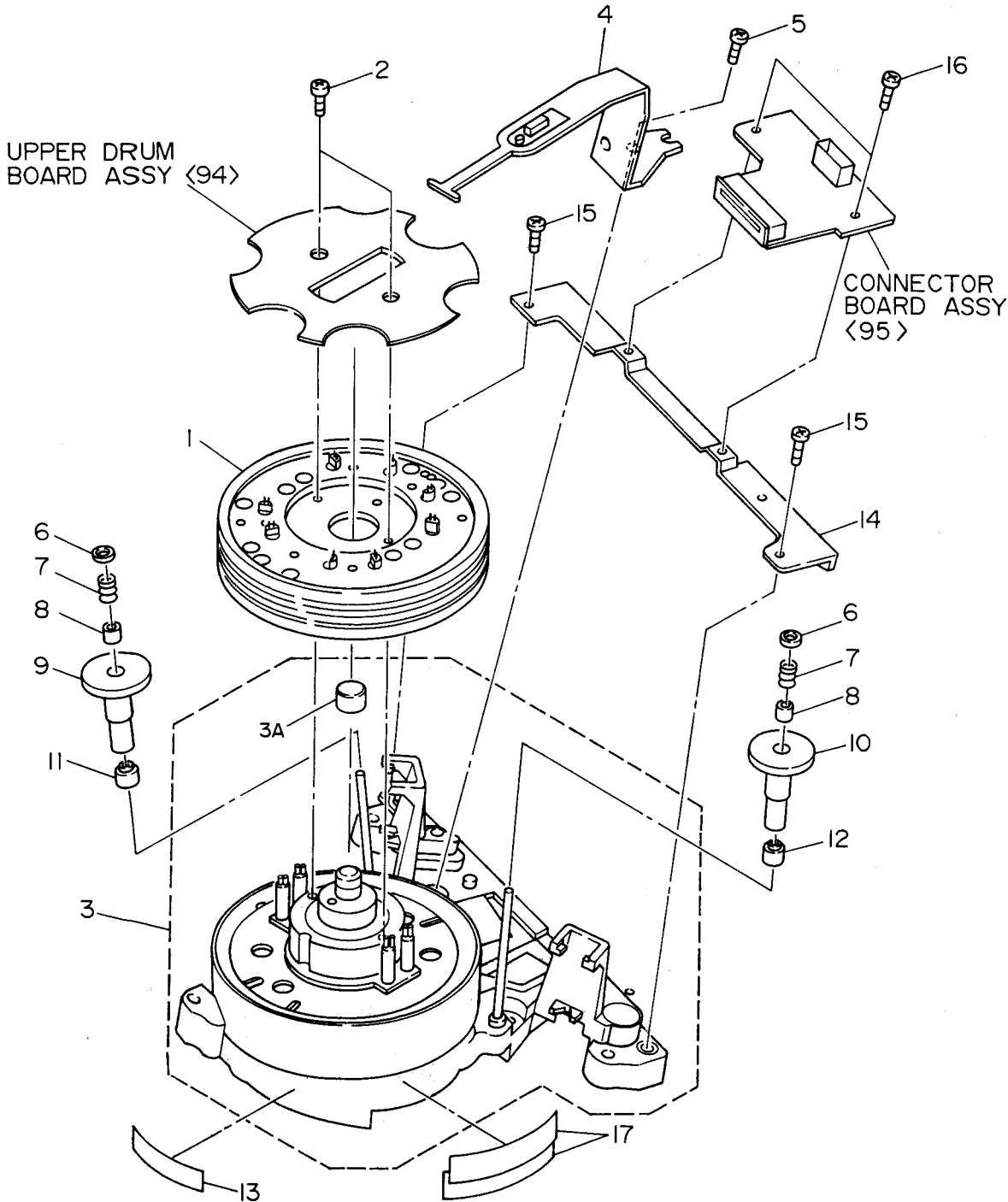
M7MM□□□□

△ REF No.	PART No.	PART NAME, DESCRIPTION
	PGS21023A-01	CASSETTE HOUSING ASSY, INCLUDED 1 TO 32
1	PRD20464	CASSETTE HOLDER
2	PQ11278-01-01	SIDE HOLDER (RIGHT)
3	PQ45459	LID OPENER
4	PQ43596A-5	LOCK LEVER (RIGHT) ASSY
4A	PQ43597-1-5	TENSION SPRING
5	PRD44285	EARTH PLATE
6	PQ11279	SIDE HOLDER (LEFT)
7	PQ45539A-01	LOCK LEVER (LEFT) ASSY
7A	PQ43597-2	TENSION SPRING
8	PRD30982A	HOLDER STAY ASSY
9	PQ11281-01-06	HOUSING STAY (RIGHT)
10	PQ34097	LID GUIDE
11	PQ34098	SENSOR LEVER
12	PRD30946	INSERT SW.LEVER
13	PQ11282-01-07	HOUSING STAY (LEFT)
14	PQ45479-01-02	DOOR STOPPER
15	PQ34100	DOOR OPENER
16	PRD10301-01-02	FRONT BRACKET
17	PRD43729	BASE BRACKET
18	SSSP2606Z	SCREW
19	PQ34103A-04	MAIN ARM ASSY
19A	PRD43806	TORSION SPRING
19B	PQ43605	TORSION SPRING
20	PRD30983A	MOTOR BRACKET ASSY
△ 21	PQ45489A	MOTOR ASSY
22	PQ45474	WORM GEAR
23	PQ34109-01-01	CONNECT GEAR
24	PQ34110-01-01	IDLER CAM
25	SPSP3003Z	SCREW, ×2
26	PRD30981A	TOP FRAME ASSY
27	PRD30962	CASSETTE HOUSING DOOR
28	PRD44088	TORSION SPRING
29	SDSF2608Z	SCREW, ×4
30	SDSF2612Z	SCREW
31	PRD44319	TEPHRON SHEET
32	PRD30030-130	PAD

5.7 CASSETTE HOUSING assembly M 7



5.8 DRUM assembly M8



DRUM ASSEMBLY M8

M8MM

REF No.	PART No.	PART NAME, DESCRIPTION
	LDR2003A LDR2004A	DRUM ASSY, BR-S800E (INCLUDED 1 TO 17) DRUM ASSY, BR-S500E (INCLUDED 1 TO 17)
1	PRD20458B	UPPER DRUM ASSY, BR-S800E
1	PRD20485B	UPPER DRUM ASSY, BR-S500E
2	PDM4165A	DRUM SCREW ASSY, ×2
3	PRD20460B-01	LOWER DRUM MOTOR ASSY
3A	PQ41596D	COMMUTATOR
4	PRD44288A	BRUSH ASSY
5	SDSG2606Z	SCREW
6	PQM30017-25	SLIT WASHER, ×2
7	PRD30023-42	COMPRESSION SPRING, ×2
8	PRD30026-49	COLLAR, ×2
9	PGZ01920	INERTIA ROLLER ASSY (SUPPLY)
10	PGZ01920-02	INERTIA ROLLER ASSY (TAKE-UP)
11	PRD30026-50	COLLAR
12	PRD30026-51	COLLAR
13	PDM4067	PART NO. LABEL
14	PRD31025	BOARD BRACKET
15	SDSG2606Z	SCREW, ×2
16	SDSG2606Z	SCREW, ×2
17	PRD43750	LABEL, ×2

SECTION 6

ELECTRICAL PARTS LIST

Note:

- Parts identified by the Δ symbol are critical for safety. Replace only with parts having the specified part numbers.
- The parts list in this section applies to both the BR-S800E and the BR-S500E unless the applicable model is specified in the Remark column or the head of respective lists. In that event the part or the P.C. board assembly is for exclusive use of the specified model.

Example 1 :

R147 QRSA08J-332YN resistor, BR-S800E 3.3 k Ω , 1/10W 100

In this case, the resistor (R147) is used in the BR-S800E onle.

Example 2 :

— AUDIO-6 BOARD ASSY, BR-S800E —

PWBA PRK30066A1 AUDIO-6 Board Ass'y

In the above case, the AUDIO-6 Board Ass'y is the circuit board assembly that is exclusively used for the BR-S800E.

Parts without any remark are used in both the models in common.

0 1 0 2 0 3 1 0

#△ REF No. PART No. PART NAME, DESCRIPTION

MOTHER-1 BOARD ASSEMBLY <01>

PWBA	PRK10166A-02	MOTHER-1 BOARD ASSY
K1	PGZ00354	FERRATE BEADS, × 9
BKT1	PRD31002	BRACKET, (FOR 64PIN-DIN)
CL1	PU59311-3	WIRE CLAMP, × 2
SCW1	GBST3006Z	SCREW, × 2
SCW2	SDST2606Z	SCREW, × 2
SPC1	PGZ01031-03	P C SUPPORT
TP1	PGZ01377	STYLE PIN, × 4
CN1	PGZ01940-64	BOARD CONNECTOR
CN2	PGZ01940-64	BOARD CONNECTOR
CN3	PGZ01941-10	BOARD CONNECTOR
CN4	PGZ01941-10	BOARD CONNECTOR
CN5	PGZ01941-10	BOARD CONNECTOR
CN6	PGZ01941-10	BOARD CONNECTOR
CN7	PU60711-118	CONNECTOR
CN8	PU60711-118	CONNECTOR
CN9	PU59973-30	CONNECTOR
CN10	PU59973-30	CONNECTOR
CN11	PU59555-111	CONNECTOR
CN12	PU59555-110	CONNECTOR
CN13	PU59555-109	CONNECTOR
CN14	PU59555-106	CONNECTOR
CN15	PU59555-105	CONNECTOR
CN16	PU59555-107	CONNECTOR

MOTHER-2 BOARD ASSEMBLY <02>

PWBA	PRK10164A-01	MOTHER-2 BOARD ASSY
BKT1	PRD44292	BRACKET, × 4(FOR 44PIN-DIN)
SCW1	GBST3006Z	SCREW, × 8
SCW2	SDST2606Z	SCREW, × 14
SPC1	PGZ01031-03	P C SUPPORT, × 3

#△ REF No. PART No. PART NAME, DESCRIPTION

TP1	PGZ01377	STYLE PIN, × 2
CL1	PU59311-3	WIRE CLAMP, × 3
CN1	PGZ01940-44	DIN CONNECTOR
CN2	PGZ01940-44	DIN CONNECTOR
CN3	PGZ01940-44	DIN CONNECTOR
CN4	PGZ01940-44	DIN CONNECTOR
CN5	PGZ01940-44	DIN CONNECTOR
CN6	PGZ01940-44	DIN CONNECTOR
CN7	PGZ01940-44	DIN CONNECTOR
CN8	PGZ01941-10	BOARD CONNECTOR
CN9	PGZ01941-10	BOARD CONNECTOR
CN10	PGZ01941-10	BOARD CONNECTOR
CN11	PGZ01941-10	BOARD CONNECTOR
CN12	PU60711-130	CONNECTOR
CN13	PU59973-30	CONNECTOR
CN14	PU59555-111	CONNECTOR
CN15	PU59555-109	CONNECTOR
CN16	PU59555-103	CONNECTOR

SLOT MOTHER BOARD ASSEMBLY <03>

PWBA	PRK20275A	SLOT MOTHER BOARD ASSY
SW1	OSS1K31-L01	DIP SW, × 2(SW1-1,SW1-2)
SW2	OSS1K31-L01	DIP SW, × 2(SW2-1,SW2-2)
SW3	PU54440	SWITCH
CN1	PGZ01937-64	MALE CONNECTOR
CN2	PGZ01940-32	FEMALE CONNECTOR
CN3	PGZ01940-20	FEMALE CONNECTOR
CN4	PGZ01940-32	FEMALE CONNECTOR
CN5	PGZ01940-20	FEMALE CONNECTOR

VIDEO-1 BOARD ASSEMBLY <10>

PWBA	PRK20262A-02	VIDEO1 BOARD ASSY, IR-S800
PWBA	PRK20262B-02	VIDEO1 BOARD ASSY, IR-S500
IC1	AN3916	IC, BR-S800E
IC2	CXD2024Q	F IC(DRY)
IC3	NJM2285M	IC
IC4	MM1117XF	IC
IC5	MM1111XF	IC
IC6	M52062AFP	IC
IC7	CXD2024Q	F IC(DRY)
IC8	AN3497SB	F IC
IC9	CXL5505M	F IC(DRY)

#△ REF No.	PART No.	PART NAME, DESCRIPTION	#△ REF No.	PART No.	PART NAME, DESCRIPTION
IC10	CXL5506M	F IC(DRY)	Q50	2SC2412K(RS)	TRANSISTOR
IC11	M52350GP	IC	Q52	2SC2412K(RS)	TRANSISTOR
IC12	TC7W04F	IC	Q53	2SC2412K(RS)	TRANSISTOR, BR-S800
IC13	TC7W04F	IC	Q54	2SC2412K(RS)	TRANSISTOR, BR-S800
IC14	TC7S08F	IC	Q55	2SC2412K(RS)	TRANSISTOR
IC15	UPC78 L05T	IC	Q58	2SC2412K(RS)	TRANSISTOR
IC16	UPC78 L05T	IC	Q59	2SC2412K(RS)	TRANSISTOR
IC17	UPC78 L05T	IC	Q60	DTC144EK	TRANSISTOR
Q1	2SC2412K(RS)	TRANSISTOR, BR-S800	Q61	2SA1037K(QR)	TRANSISTOR
Q2	2SC2412K(RS)	TRANSISTORM, BR-S800	Q62	DTC144EK	TRANSISTOR
Q3	2SC2412K(RS)	TRANSISTOR, BR-S800	Q63	DTC144EK	TRANSISTOR, BR-S800
Q4	2SC2412K(RS)	TRANSISTOR	Q64	DTC144EK	TRANSISTOR, BR-S800
Q5	2SA1037K(QR)	TRANSISTOR	Q65	2SC2412K(RS)	TRANSISTOR
Q6	2SC2412K(RS)	TRANSISTOR	Q67	2SC2412K(RS)	TRANSISTOR
Q7	2SK621	FE TRANSISTOR	Q68	2SC2412K(RS)	TRANSISTOR
Q8	2SK621	FE TRANSISTOR	Q69	2SC2412K(RS)	TRANSISTOR
Q9	2SC2412K(RS)	TRANSISTOR, BR-S800	Q70	2SC2412K(RS)	TRANSISTOR
Q10	2SA1037K(QR)	TRANSISTOR, BR-S800	Q71	2SC2412K(RS)	TRANSISTOR
Q11	2SC2412K(RS)	TRANSISTOR, BR-S800	Q72	2SA1037K(QR)	TRANSISTOR
Q12	2SC2412K(RS)	TRANSISTOR, BR-S800	Q73	2SC2412K(RS)	TRANSISTOR
Q13	2SC2412K(RS)	TRANSISTOR, BR-S800	Q74	2SC2412K(RS)	TRANSISTOR
Q14	2SA1037K(QR)	TRANSISTOR, BR-S800	Q75	2SC2412K(RS)	TRANSISTOR
Q15	2SC2412K(RS)	TRANSISTOR, BR-S800	Q76	2SC2412K(RS)	TRANSISTOR
Q16	2SC2412K(RS)	TRANSISTOR	Q77	2SC2412K(RS)	TRANSISTOR
Q17	2SC2412K(RS)	TRANSISTOR	Q78	2SC2412K(RS)	TRANSISTOR
Q18	2SA1037K(QR)	TRANSISTOR	Q79	2SC2412K(RS)	TRANSISTOR
Q19	2SC2412K(RS)	TRANSISTOR, BR-S800	Q80	2SC2412K(QR)	TRANSISTOR
Q20	2SC2412K(RS)	TRANSISTOR	Q81	2SA1037K(QR)	TRANSISTOR
Q21	2SC2412K(RS)	TRANSISTOR	Q82	2SA1037K(QR)	TRANSISTOR
Q22	2SC2412K(RS)	TRANSISTOR	Q83	2SC2412K(RS)	TRANSISTOR
Q23	2SA1037K(QR)	TRANSISTOR	Q84	2SC2412K(RS)	TRANSISTOR
Q24	2SC2412K(RS)	TRANSISTOR, BR-S800	Q86	DTC144EK	TRANSISTOR
Q25	2SC2412K(RS)	TRANSISTOR	Q87	2SC2412K(RS)	TRANSISTOR
Q26	2SA1037K(QR)	TRANSISTOR, BR-S800	Q88	2SC2412K(RS)	TRANSISTOR
Q27	2SC2412K(RS)	TRANSISTOR, BR-S800	Q89	2SC2412K(RS)	TRANSISTOR
Q29	2SA1037K(QR)	TRANSISTOR	Q90	2SC2412K(RS)	TRANSISTOR
Q30	DTC144EK	TRANSISTOR	Q91	2SC2412K(RS)	TRANSISTOR
Q31	2SC2412K(RS)	TRANSISTOR	Q92	2SC2412K(RS)	TRANSISTOR
Q32	2SC2412K(RS)	TRANSISTOR	Q93	2SC2412K(RS)	TRANSISTOR
Q33	2SA1037K(QR)	TRANSISTOR	Q94	2SC2412K(RS)	TRANSISTOR
Q34	2SC2412K(RS)	TRANSISTOR	Q95	DTC144EK	TRANSISTOR
Q35	2SC2412K(RS)	TRANSISTOR	Q96	2SC2412K(RS)	TRANSISTOR
Q36	2SC2412K(RS)	TRANSISTOR	Q97	DTC144EK	TRANSISTOR
Q37	2SC2412K(RS)	TRANSISTOR	Q98	2SC2412K(RS)	TRANSISTOR
Q38	2SC2412K(RS)	TRANSISTOR	Q99	2SC2412K(RS)	TRANSISTOR
Q39	2SC2412K(RS)	TRANSISTOR	D1	DAN202K	DIODE
Q40	2SA1037K(QR)	TRANSISTOR	D2	DAP202K	DIODE
Q41	2SC2412K(RS)	TRANSISTOR	D3	DAN202K	DIODE
Q42	2SC2412K(QR)	TRANSISTOR	D4	DAN202K	DIODE
Q43	2SC2412K(QR)	TRANSISTOR	D5	DAN202K	DIODE
Q44	2SC2412K(QR)	TRANSISTOR	D6	DAN202K	DIODE
Q45	2SA1037K(QR)	TRANSISTOR	D7	DAN202K	DIODE
Q46	2SC2412K(RS)	TRANSISTOR	D8	DAN202K	DIODE
Q47	2SC2412K(RS)	TRANSISTOR	R1	NVP1416-502N	V RESISTOR, BR-S800 5kΩ, 1/4W
Q48	2SC2412K(RS)	TRANSISTOR			
Q49	2SC2412K(RS)	TRANSISTOR			

#△ REF No.	PART No.	PART NAME, DESCRIPTION
R2	NVP1416-201N	V RESISTOR, BR-S800 200Ω,1/4W
R3	NVP1416-201N	V RESISTOR, BR-S800 200Ω,1/4W
R4	NVP1415-503N	V RESISTOR, BR-S800 50kΩ,1/4W
R5	NVP1415-102N	V RESISTOR 1kΩ,1/4W
R6	NVP1416-202N	V RESISTOR 2kΩ,1/4W
R7	NVP1416-202N	V RESISTOR 2kΩ,1/4W
R8	NVP1416-503N	V RESISTOR 50kΩ,1/4W
R9	NVP1416-103N	V RESISTOR 10kΩ,1/4W
R10	NVP1416-103N	V RESISTOR 10kΩ,1/4W
R11	NVP1416-103N	V RESISTOR 10kΩ,1/4W
R12	NVP1416-103N	V RESISTOR 10kΩ,1/4W
R13	NVP1416-102N	V RESISTOR 1kΩ,1/4W
R101	QRSA08J-750YN	RESISTOR, BR-S800 75Ω,1/10W
R102	QRSA08J-750YN	RESISTOR, BR-S800 75Ω,1/10W
R103	QRSA08J-333YN	RESISTOR, BR-S800 33kΩ,1/10W
R104	QRSA08J-273YN	RESISTOR, BR-S800 27kΩ,1/10W
R105	QRSA08J-152YN	RESISTOR, BR-S800 1.5kΩ,1/10W
R106	QRSA08J-333YN	RESISTOR, BR-S800 33kΩ,1/10W
R107	QRSA08J-273YN	RESISTOR, BR-S800 27kΩ,1/10W
R108	QRSA08J-152YN	RESISTOR, BR-S800 1.5kΩ,1/10W
R109	QRSA08J-122YN	RESISTOR, BR-S800 1.2kΩ,1/10W
R110	QRSA08J-332YN	RESISTOR, BR-S800 3.3kΩ,1/10W
R111	QRSA08J-0R0Y	RESISTOR, BR-S800 0Ω,1/10W
R112	QRSA08J-102YN	RESISTOR, BR-S800 1kΩ,1/10W
R113	QRSA08J-183YN	RESISTOR, BR-S800 18kΩ,1/10W
R114	QRSA08J-273YN	RESISTOR, BR-S800 27kΩ,1/10W
R115	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
R116	QRSA08J-333YN	RESISTOR 33kΩ,1/10W
R117	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R118	QRSA08J-222YN	RESISTOR 2.2kΩ,1/10W
R119	QRSA08J-182YN	RESISTOR 1.8kΩ,1/10W
R120	QRSA08J-561YN	RESISTOR 560Ω,1/10W
R121	QRSA08J-272YN	RESISTOR 2.7kΩ,1/10W
R122	QRSA08J-750YN	RESISTOR, BR-S800 75Ω,1/10W
R123	QRSA08J-561YN	RESISTOR, BR-S800 560Ω,1/10W
R124	QRSA08J-103YN	RESISTOR, BR-S800 10kΩ,1/10W
R125	QRSA08J-333YN	RESISTOR, BR-S800 33kΩ,1/10W
R126	QRSA08J-102YN	RESISTOR, BR-S800 1kΩ,1/10W
R127	QRSA08J-681YN	RESISTOR, BR-S800 680Ω,1/10W
R128	QRSA08J-222YN	RESISTOR, BR-S800 2.2kΩ,1/10W
R129	QRSA08J-223YN	RESISTOR, BR-S800 22kΩ,1/10W
R130	QRSA08J-273YN	RESISTOR, BR-S800 27kΩ,1/10W
R131	QRSA08J-181YN	RESISTOR, BR-S800 180Ω,1/10W
R132	QRSA08J-181YN	RESISTOR, BR-S800 180Ω,1/10W
R133	NRVA62D-751N	RESISTOR, BR-S800 750Ω,1/16W
R134	NRVA62D-102N	RESISTOR, BR-S800 1kΩ,1/16W
R135	QRSA08J-102YN	RESISTOR, BR-S800 1kΩ,1/10W
R136	QRSA08J-391YN	RESISTOR, BR-S800 390Ω,1/10W
R137	NRVA62D-152N	RESISTOR, BR-S800 1.5kΩ,1/16W
R138	QRSA08J-391YN	RESISTOR, BR-S800 390Ω,1/10W
R139	QRSA08J-333YN	RESISTOR, BR-S800 33kΩ,1/10W
R140	QRSA08J-103YN	RESISTOR, BR-S800 10kΩ,1/10W
R141	QRSA08J-222YN	RESISTOR, BR-S800 2.2kΩ,1/10W
R142	QRSA08J-561YN	RESISTOR, BR-S800 560Ω,1/10W
R143	QRSA08J-561YN	RESISTOR, BR-S800 560Ω,1/10W
R145	QRSA08J-101YN	RESISTOR, BR-S800 100Ω,1/10W
R146	QRSA08J-122YN	RESISTOR, BR-S800 1.2kΩ,1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION
R147	QRSA08J-332YN	RESISTOR 3.3kΩ,1/10W
R148	QRSA08J-101YN	RESISTOR, BR-S800 100Ω,1/10W
R149	QRSA08J-102YN	RESISTOR, BR-S800 1kΩ,1/10W
R150	QRSA08J-681YN	RESISTOR, BR-S800 680Ω,1/10W
R151	QRSA08J-331YN	RESISTOR, BR-S800 330Ω,1/10W
R152	QRSA08J-201YN	RESISTOR 200Ω,1/10W
R153	QRSA08J-332YN	RESISTOR 3.3kΩ,1/10W
R154	QRSA08J-201YN	RESISTOR 200Ω,1/10W
R155	QRSA08J-272YN	RESISTOR 2.7kΩ,1/10W
R156	QRSA08J-153YN	RESISTOR 15kΩ,1/10W
R157	QRSA08J-750YN	RESISTOR 75Ω,1/10W
R158	QRSA08J-393YN	RESISTOR 39kΩ,1/10W
R159	QRSA08J-223YN	RESISTOR 22kΩ,1/10W
R160	QRSA08J-201YN	RESISTOR 200Ω,1/10W
R161	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R162	QRSA08J-201YN	RESISTOR 200Ω,1/10W
R163	QRSA08J-393YN	RESISTOR 39kΩ,1/10W
R164	QRSA08J-223YN	RESISTOR 22kΩ,1/10W
R165	QRSA08J-222YN	RESISTOR 2.2kΩ,1/10W
R166	NRVA62D-102N	RESISTOR 1kΩ,1/16W
R167	QRSA08J-101YN	RESISTOR 100Ω,1/10W
R168	NRVA62D-681N	RESISTOR 680Ω,1/16W
R170	QRSA08J-0R0Y	RESISTOR, BR-S800 0Ω,1/10W
R171	QRSA08J-152YN	RESISTOR, BR-S800 1.5kΩ,1/10W
R172	QRSA08J-152YN	RESISTOR 1.5kΩ,1/10W
R173	QRSA08J-393YN	RESISTOR 39kΩ,1/10W
R174	QRSA08J-223YN	RESISTOR 22kΩ,1/10W
R175	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R176	QRSA08J-201YN	RESISTOR 200Ω,1/10W
R177	QRSA08J-201YN	RESISTOR 200Ω,1/10W
R178	QRSA08J-393YN	RESISTOR 39kΩ,1/10W
R179	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
R180	QRSA08J-222YN	RESISTOR 2.2kΩ,1/10W
R181	NRVA62D-102N	RESISTOR 1kΩ,1/16W
R182	QRSA08J-101YN	RESISTOR 100Ω,1/10W
R183	NRVA62D-102N	RESISTOR 1kΩ,1/16W
R184	QRSA08J-101YN	RESISTOR 100Ω,1/10W
R185	NRVA62D-751N	RESISTOR, BR-S800 750Ω,1/16W
R186	NRVA62D-681N	RESISTOR, BR-S800 680Ω,1/16W
R187	QRSA08J-152YN	RESISTOR 1.5kΩ,1/10W
R188	QRSA08J-681YN	RESISTOR, BR-S800 680Ω,1/10W
R189	QRSA08J-471YN	RESISTOR, BR-S800 470Ω,1/10W
R190	QRSA08J-103YN	RESISTOR, BR-S800 10kΩ,1/10W
R191	QRSA08J-181YN	RESISTOR, BR-S800 180Ω,1/10W
R192	QRSA08J-181YN	RESISTOR, BR-S800 180Ω,1/10W
R193	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
R194	QRSA08J-103YN	RESISTOR, BR-S800 10kΩ,1/10W
R195	QRSA08J-181YN	RESISTOR 180Ω,1/10W
R198	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R199	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
R200	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
R201	QRSA08J-683YN	RESISTOR 68kΩ,1/10W
R202	QRSA08J-105YN	RESISTOR 1MΩ,1/10W
R203	QRSA08J-181YN	RESISTOR 180Ω,1/10W
R204	QRSA08J-105YN	RESISTOR, BR-S800 1MΩ,1/10W
R205	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R206	QRSA08J-181YN	RESISTOR 180Ω,1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	#△ REF No.	PART No.	PART NAME, DESCRIPTION
R207	QRSA08J-333YN	RESISTOR 33kΩ,1/10W	R264	QRSA08J-222YN	RESISTOR 2.2kΩ,1/10W
R208	QRSA08J-393YN	RESISTOR 39kΩ,1/10W	R265	QRSA08J-181YN	RESISTOR 180Ω,1/10W
R209	QRSA08J-393YN	RESISTOR 39kΩ,1/10W	R266	QRSA08J-181YN	RESISTOR 180Ω,1/10W
R210	QRSA08J-183YN	RESISTOR 18kΩ,1/10W	R267	QRSA08J-680YN	RESISTOR 68Ω,1/10W
			R268	QRSA08J-680YN	RESISTOR 68Ω,1/10W
R211	QRSA08J-222YN	RESISTOR 2.2kΩ,1/10W	R269	QRSA08J-123YN	RESISTOR 12kΩ,1/10W
R212	NRVA62D-102N	RESISTOR 1kΩ,1/16W	R270	QRSA08J-182YN	RESISTOR 1.8kΩ,1/10W
R213	NRVA62D-222N	RESISTOR 2.2kΩ,1/16W			
R214	QRSA08J-101YN	RESISTOR 100Ω,1/10W	R271	QRSA08J-750YN	RESISTOR 75Ω,1/10W
R215	QRSA08J-153YN	RESISTOR 15kΩ,1/10W	R272	QRSA08J-471YN	RESISTOR 470Ω,1/10W
R216	QRSA08J-103YN	RESISTOR 10kΩ,1/10W	R273	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
R217	QRSA08J-391YN	RESISTOR 390Ω,1/10W	R274	QRSA08J-222YN	RESISTOR 2.2kΩ,1/10W
R218	QRSA08J-102YN	RESISTOR 1kΩ,1/10W	R276	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
R219	QRSA08J-222YN	RESISTOR 2.2kΩ,1/10W	R277	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
R220	QRSA08J-222YN	RESISTOR 2.2kΩ,1/10W	R278	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
			R279	QRSA08J-222YN	RESISTOR 2.2kΩ,1/10W
R221	QRSA08J-153YN	RESISTOR 15kΩ,1/10W	R280	QRSA08J-151YN	RESISTOR 150Ω,1/10W
R222	QRSA08J-103YN	RESISTOR 10kΩ,1/10W			
R223	NRVA62D-123N	RESISTOR 12kΩ,1/16W	R281	QRSA08J-181YN	RESISTOR, BR-S800 180Ω,1/10W
R224	QRSA08J-222YN	RESISTOR 2.2kΩ,1/10W	R282	QRSA08J-333YN	RESISTOR, BR-S800 33kΩ,1/10W
R225	QRSA08J-181YN	RESISTOR 180Ω,1/10W	R283	QRSA08J-273YN	RESISTOR, BR-S800 27kΩ,1/10W
R226	QRSA08J-181YN	RESISTOR 180Ω,1/10W	R284	QRSA08J-152YN	RESISTOR, BR-S800 1.5kΩ,1/10W
R227	QRSA08J-680YN	RESISTOR 68Ω,1/10W	R285	QRSA08J-391YN	RESISTOR, BR-S800 390Ω,1/10W
R228	QRSA08J-680YN	RESISTOR 68Ω,1/10W	R286	QRSA08J-102YN	RESISTOR, BR-S800 1kΩ,1/10W
R229	QRSA08J-123YN	RESISTOR 12kΩ,1/10W	R287	QRSA08J-152YN	RESISTOR 1.5kΩ,1/10W
R230	QRSA08J-222YN	RESISTOR 2.2kΩ,1/10W	R288	QRSA08J-152YN	RESISTOR 1.5kΩ,1/10W
			R289	QRSA08J-562YN	RESISTOR 5.6kΩ,1/10W
R231	QRSA08J-750YN	RESISTOR 75Ω,1/10W	R290	QRSA08J-0R0Y	RESISTOR 0Ω,1/10W
R232	QRSA08J-103YN	RESISTOR 10kΩ,1/10W			
R233	QRSA08J-103YN	RESISTOR 10kΩ,1/10W	R291	QRSA08J-122YN	RESISTOR 1.2kΩ,1/10W
R234	QRSA08J-101YN	RESISTOR 100Ω,1/10W	R292	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R235	QRSA08J-393YN	RESISTOR 39kΩ,1/10W	R293	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R236	QRSA08J-183YN	RESISTOR 18kΩ,1/10W	R294	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R237	NRVA62D-391N	CMF RESISTOR 390Ω,1/16W	R295	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R238	NRVA62D-391N	CMF RESISTOR 390Ω,1/16W	R296	QRSA08J-821YN	RESISTOR 820Ω,1/10W
R239	NRVA62D-471N	RESISTOR 470Ω,1/16W			
R240	NRVA62D-122N	RESISTOR 1.2kΩ,1/16W	R302	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
			R303	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
R241	QRSA08J-122YN	RESISTOR 1.2kΩ,1/10W	R304	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
R242	QRSA08J-122YN	RESISTOR 1.2kΩ,1/10W	R305	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R243	QRSA08J-103YN	RESISTOR 10kΩ,1/10W	R306	QRSA08J-223YN	RESISTOR 22kΩ,1/10W
R244	QRSA08J-750YN	RESISTOR 75Ω,1/10W	R307	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
R245	QRSA08J-152YN	RESISTOR 1.5kΩ,1/10W	R308	QRSA08J-560YN	RESISTOR, BR-S800 56Ω,1/10W
R246	QRSA08J-561YN	RESISTOR 560Ω,1/10W	R309	QRSA08J-560YN	RESISTOR, BR-S800 56Ω,1/10W
R247	NRVA62D-102N	RESISTOR 1kΩ,1/16W	R310	QRSA08J-222YN	RESISTOR, BR-S800 2.2kΩ,1/10W
R248	NRVA62D-471N	RESISTOR 470Ω,1/16W			
R249	QRSA08J-333YN	RESISTOR 33kΩ,1/10W	R311	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
R250	QRSA08J-562YN	RESISTOR 5.6kΩ,1/10W	R312	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
			R313	QRSA08J-563YN	RESISTOR 56kΩ,1/10W
R251	QRSA08J-122YN	RESISTOR 1.2kΩ,1/10W	R314	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R252	NRVA62D-561N	RESISTOR 560Ω,1/16W	R315	QRSA08J-182YN	RESISTOR 1.8kΩ,1/10W
R253	QRSA08J-101YN	RESISTOR 100Ω,1/10W	R316	QRSA08J-681YN	RESISTOR 680Ω,1/10W
R254	NRVA62D-272N	RESISTOR 2.7kΩ,1/16W	R317	QRSA08J-271YN	RESISTOR 270Ω,1/10W
R255	QRSA08J-153YN	RESISTOR 15kΩ,1/10W	R318	QRSA08J-223YN	RESISTOR 22kΩ,1/10W
R256	QRSA08J-103YN	RESISTOR 10kΩ,1/10W	R319	QRSA08J-223YN	RESISTOR 22kΩ,1/10W
R257	QRSA08J-391YN	RESISTOR 390Ω,1/10W	R320	QRSA08J-822YN	RESISTOR 8.2kΩ,1/10W
R258	QRSA08J-102YN	RESISTOR 1kΩ,1/10W			
R259	QRSA08J-222YN	RESISTOR 2.2kΩ,1/10W	R321	QRSA08J-104YN	RESISTOR 100kΩ,1/10W
R260	QRSA08J-222YN	RESISTOR 2.2kΩ,1/10W	R322	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
			R325	QRSA08J-393YN	RESISTOR, BR-S800 39kΩ,1/10W
R261	QRSA08J-153YN	RESISTOR 15kΩ,1/10W	R325	QRSA08J-473YN	RESISTOR, BR-S500 47kΩ,1/10W
R262	QRSA08J-103YN	RESISTOR 10kΩ,1/10W	R326	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
R263	NRVA62D-123N	RESISTOR 12kΩ,1/16W	R327	QRSA08J-223YN	RESISTOR 22kΩ,1/10W

#	REF No.	PART No.	PART NAME, DESCRIPTION
R328		QRSA08J-273 YN	RESISTOR 27k Ω , 1/10W
R329		QRSA08J-272 YN	RESISTOR 2.7k Ω , 1/10W
R330		QRSA08J-562 YN	RESISTOR 5.6k Ω , 1/10W
R331		QRSA08J-103 YN	RESISTOR 10k Ω , 1/10W
R332		QRSA08J-103 YN	RESISTOR 10k Ω , 1/10W
R333		QRSA08J-332 YN	RESISTOR 3.3k Ω , 1/10W
R334		NRVA62D-681N	RESISTOR 680 Ω , 1/16W
R335		NRVA62D-271N	RESISTOR 270 Ω , 1/16W
R336		QRSA08J-471 YN	RESISTOR 470 Ω , 1/10W
R337		QRSA08J-471 YN	RESISTOR 470 Ω , 1/10W
R338		QRSA08J-201 YN	RESISTOR 200 Ω , 1/10W
R339		QRSA08J-332 YN	RESISTOR 3.3k Ω , 1/10W
R340		QRSA08J-201 YN	RESISTOR 200 Ω , 1/10W
R341		QRSA08J-750 YN	RESISTOR 75 Ω , 1/10W
R342		QRSA08J-393 YN	RESISTOR 39k Ω , 1/10W
R343		QRSA08J-153 YN	RESISTOR 15k Ω , 1/10W
R344		NRVA62D-152N	RESISTOR 1.5k Ω , 1/16W
R345		NRVA62D-102N	RESISTOR 1k Ω , 1/16W
R346		QRSA08J-152 YN	RESISTOR 1.5k Ω , 1/10W
R347		QRSA08J-393 YN	RESISTOR 39k Ω , 1/10W
R348		QRSA08J-223 YN	RESISTOR 22k Ω , 1/10W
R349		QRSA08J-102 YN	RESISTOR 1k Ω , 1/10W
R350		QRSA08J-201 YN	RESISTOR 200 Ω , 1/10W
R351		QRSA08J-201 YN	RESISTOR 200 Ω , 1/10W
R352		QRSA08J-393 YN	RESISTOR 39k Ω , 1/10W
R353		QRSA08J-223 YN	RESISTOR 22k Ω , 1/10W
R354		QRSA08J-0R0Y	RESISTOR 0 Ω , 1/10W
R355		QRSA08J-152 YN	RESISTOR 1.5k Ω , 1/10W
R357		QRSA08J-272 YN	RESISTOR 2.7k Ω , 1/10W
R358		QRSA08J-393 YN	RESISTOR 39k Ω , 1/10W
R359		QRSA08J-223 YN	RESISTOR 22k Ω , 1/10W
R360		QRSA08J-222 YN	RESISTOR 2.2k Ω , 1/10W
R361		QRSA08J-331 YN	RESISTOR 330 Ω , 1/10W
R362		QRSA08J-561 YN	RESISTOR 560 Ω , 1/10W
R363		QRSA08J-102 YN	RESISTOR 1k Ω , 1/10W
R364		QRSA08J-152 YN	RESISTOR 1.5k Ω , 1/10W
R365		NRVA62D-751N	RESISTOR 750 Ω , 1/16W
R366		NRVA62D-102N	RESISTOR 1k Ω , 1/16W
R367		QRSA08J-393 YN	RESISTOR 39k Ω , 1/10W
R368		QRSA08J-223 YN	RESISTOR 22k Ω , 1/10W
R369		QRSA08J-331 YN	RESISTOR 330 Ω , 1/10W
R370		QRSA08J-152 YN	RESISTOR 1.5k Ω , 1/10W
R371		QRSA08J-223 YN	RESISTOR 22k Ω , 1/10W
R372		QRSA08J-223 YN	RESISTOR 22k Ω , 1/10W
R373		QRSA08J-103 YN	RESISTOR 10k Ω , 1/10W
R374		NRVA62D-561N	RESISTOR 560 Ω , 1/16W
R375		NRVA62D-391N	CMF RESISTOR 390 Ω , 1/16W
R376		NRVA62D-471N	RESISTOR 470 Ω , 1/16W
R377		NRVA62D-471N	RESISTOR 470 Ω , 1/16W
R378		QRSA08J-183 YN	RESISTOR 18k Ω , 1/10W
R379		QRSA08J-102 YN	RESISTOR 1k Ω , 1/10W
R380		QRSA08J-122 YN	RESISTOR 1.2k Ω , 1/10W
R381		QRSA08J-152 YN	RESISTOR 1.5k Ω , 1/10W
R384		QRSA08J-681 YN	RESISTOR 680 Ω , 1/10W
R385		QRSA08J-102 YN	RESISTOR 1k Ω , 1/10W
R387		QRSA08J-152 YN	RESISTOR 1.5k Ω , 1/10W
R388		QRSA08J-102 YN	RESISTOR 1k Ω , 1/10W

#	REF No.	PART No.	PART NAME, DESCRIPTION
R389		QRSA08J-823 YN	RESISTOR 82k Ω , 1/10W
R390		QRSA08J-105 YN	RESISTOR 1M Ω , 1/10W
R391		QRSA08J-182 YN	RESISTOR 1.8k Ω , 1/10W
R392		QRSA08J-182 YN	RESISTOR 1.8k Ω , 1/10W
R393		QRSA08J-222 YN	RESISTOR 2.2k Ω , 1/10W
R394		QRSA08J-105 YN	RESISTOR 1M Ω , 1/10W
R395		QRSA08J-561 YN	RESISTOR 560 Ω , 1/10W
R396		QRSA08J-471 YN	RESISTOR 470 Ω , 1/10W
R397		QRSA08J-471 YN	RESISTOR 470 Ω , 1/10W
R398		QRSA08J-393 YN	RESISTOR 39k Ω , 1/10W
R399		QRSA08J-223 YN	RESISTOR 22k Ω , 1/10W
R400		QRSA08J-222 YN	RESISTOR 2.2k Ω , 1/10W
R401		QRSA08J-393 YN	RESISTOR 39k Ω , 1/10W
R402		QRSA08J-223 YN	RESISTOR 22k Ω , 1/10W
R403		QRSA08J-152 YN	RESISTOR 1.5k Ω , 1/10W
R404		QRSA08J-102 YN	RESISTOR 1k Ω , 1/10W
R405		QRSA08J-331 YN	RESISTOR 330 Ω , 1/10W
R406		QRSA08J-683 YN	RESISTOR 68k Ω , 1/10W
R407		QRSA08J-823 YN	RESISTOR 82k Ω , 1/10W
R408		QRSA08J-102 YN	RESISTOR 1k Ω , 1/10W
R409		QRSA08J-122 YN	RESISTOR 1.2k Ω , 1/10W
R410		QRSA08J-562 YN	RESISTOR 5.6k Ω , 1/10W
R411		QRSA08J-562 YN	RESISTOR 5.6k Ω , 1/10W
R413		QRSA08J-102 YN	RESISTOR 1k Ω , 1/10W
R414		QRSA08J-331 YN	RESISTOR 330 Ω , 1/10W
R416		QRSA08J-103 YN	RESISTOR 10k Ω , 1/10W
R417		QRSA08J-103 YN	RESISTOR 10k Ω , 1/10W
R418		QRSA08J-102 YN	RESISTOR 1k Ω , 1/10W
R419		QRSA08J-152 YN	RESISTOR 1.5k Ω , 1/10W
R420		QRSA08J-683 YN	RESISTOR 68k Ω , 1/10W
R421		QRSA08J-562 YN	RESISTOR 5.6k Ω , 1/10W
R422		QRSA08J-562 YN	RESISTOR 5.6k Ω , 1/10W
R423		QRSA08J-124 YN	RESISTOR 120k Ω , 1/10W
R424		QRSA08J-753 YN	RESISTOR 75k Ω , 1/10W
R425		QRSA08J-102 YN	RESISTOR 1k Ω , 1/10W
R426		QRSA08J-562 YN	RESISTOR 5.6k Ω , 1/10W
R427		QRSA08J-562 YN	RESISTOR 5.6k Ω , 1/10W
R428		QRSA08J-562 YN	RESISTOR 5.6k Ω , 1/10W
R429		QRSA08J-562 YN	RESISTOR 5.6k Ω , 1/10W
R430		QRSA08J-102 YN	RESISTOR 1k Ω , 1/10W
R431		QRSA08J-102 YN	RESISTOR 1k Ω , 1/10W
R432		QRSA08J-103 YN	RESISTOR 10k Ω , 1/10W
R433		QRSA08J-223 YN	RESISTOR 22k Ω , 1/10W
R434		QRSA08J-821 YN	RESISTOR 820 Ω , 1/10W
R435		QRSA08J-222 YN	RESISTOR 2.2k Ω , 1/10W
R436		QRSA08J-0R0Y	RESISTOR 0 Ω , 1/10W
R437		QRSA08J-102 YN	RESISTOR 1k Ω , 1/10W
R438		QRSA08J-102 YN	RESISTOR 1k Ω , 1/10W
R439		QRSA08J-102 YN	RESISTOR 1k Ω , 1/10W
R440		QRSA08J-102 YN	RESISTOR, BR-S800 1k Ω , 1/10W
R441		QRSA08J-102 YN	RESISTOR 1k Ω , 1/10W
R442		NRVA62D-222N	RESISTOR 2.2k Ω , 1/16W
R443		NRVA62D-222N	RESISTOR 2.2k Ω , 1/16W
R444		NRVA62D-751N	RESISTOR 750 Ω , 1/16W
R445		NRVA62D-153N	RESISTOR 15k Ω , 1/16W
R446		QRSA08J-821 YN	RESISTOR 820 Ω , 1/10W
R447		QRSA08J-102 YN	RESISTOR 1k Ω , 1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	#△ REF No.	PART No.	PART NAME, DESCRIPTION
R448	QRSA08J-333YN	RESISTOR 33kΩ, 1/10W	C27	QCYA1EK-103	CAPACITOR, BR-S800 0.01 μ F, 25V
R449	QRSA08J-153YN	RESISTOR 15kΩ, 1/10W	C28	NEH11CM-476NP	E CAPACITOR, BR-S800 47 μ F, 16V
R450	QRSA08J-122YN	RESISTOR 1.2kΩ, 1/10W	C29	QCTA1CH-390	CAPACITOR, BR-S800 39pF, 16V
			C30	NEH51AM-107P	E CAPACITOR, BR-S800 100 μ F, 10V
R451	QRSA08J-681YN	RESISTOR 680Ω, 1/10W	C32	NEH11CM-476NP	E CAPACITOR 47 μ F, 16V
R452	QRSA08J-222YN	RESISTOR 2.2kΩ, 1/10W	C33	QCYA1EK-103	CAPACITOR 0.01 μ F, 25V
R453	QRSA08J-273YN	RESISTOR 27kΩ, 1/10W	C34	NEH11CM-476NP	E CAPACITOR 47 μ F, 16V
R456	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W	C35	QCYA1EK-103	CAPACITOR 0.01 μ F, 25V
R457	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W	C36	QCYA1EK-104	CAPACITOR 0.1 μ F, 25V
R458	QRSA08J-121YN	RESISTOR, BR-S500 120Ω, 1/10W	C37	QCYA1EK-104	CAPACITOR 0.1 μ F, 25V
R459	NRVA62D-102N	RESISTOR, BR-S500 1kΩ, 1/16W	C38	QCYA1EK-103	CAPACITOR 0.01 μ F, 25V
R460	NRVA62D-751N	RESISTOR, BR-S500 750Ω, 1/16W	C39	QCYA1EK-103	CAPACITOR 0.01 μ F, 25V
			C40	NEH11CM-476NP	E CAPACITOR 47 μ F, 16V
R461	NRVA62D-391N	RESISTOR, BR-S500 390Ω, 1/16W	C41	QCYA1EK-104	CAPACITOR 0.1 μ F, 25V
R462	QRSA08J-562YN	RESISTOR 5.6kΩ, 1/10W	C42	QCYA1HK-102	CAPACITOR 0.001 μ F, 50V
R464	QRSA08J-0R0Y	RESISTOR, BR-S500 0Ω, 1/10W	C43	QCYA1EK-104	CAPACITOR 0.1 μ F, 25V
R465	QRSA08J-101YN	RESISTOR 100Ω, 1/10W	C44	QCYA1EK-103	CAPACITOR 0.01 μ F, 25V
R466	QRSA08J-681YN	RESISTOR 680Ω, 1/10W	C45	QCYA1EK-103	CAPACITOR 0.01 μ F, 25V
R467	QRSA08J-391YN	RESISTOR 390Ω, 1/10W	C46	QCYA1EK-104	CAPACITOR 0.1 μ F, 25V
R468	QRSA08J-155YN	RESISTOR 1.5MΩ, 1/10W	C47	QCYA1EK-103	CAPACITOR 0.01 μ F, 25V
R469	QRSA08J-472YN	RESISTOR 4.7kΩ, 1/10W	C48	QCTA1CH-100	CAPACITOR 10pF, 16V
R470	QRSA08J-472YN	RESISTOR 4.7kΩ, 1/10W	C49	QCYA1EK-104	CAPACITOR 0.1 μ F, 25V
			C50	QCYA1EK-104	CAPACITOR 0.1 μ F, 25V
R471	QRSA08J-103YN	RESISTOR 10kΩ, 1/10W	C51	QCYA1EK-104	CAPACITOR 0.1 μ F, 25V
R472	QRSA08J-221YN	RESISTOR 220Ω, 1/10W	C52	QCYA1EK-104	CAPACITOR 0.1 μ F, 25V
R473	QRSA08J-471YN	RESISTOR 470Ω, 1/10W	C53	QCYA1EK-103	CAPACITOR 0.01 μ F, 25V
R474	QRSA08J-561YN	RESISTOR 560Ω, 1/10W	C54	NEH11CM-476NP	E CAPACITOR 47 μ F, 16V
R475	QRSA08J-473YN	RESISTOR 47kΩ, 1/10W	C55	QCYA1EK-103	CAPACITOR 0.01 μ F, 25V
R476	QRSA08J-103YN	RESISTOR 10kΩ, 1/10W	C56	NEH51AM-107P	E CAPACITOR 100 μ F, 10V
R477	QRSA08J-152YN	RESISTOR 1.5kΩ, 1/10W	C57	NEH51AM-107P	E CAPACITOR 100 μ F, 10V
			C59	QCYA1EK-103	CAPACITOR 0.01 μ F, 25V
B3	QRD161J-0R0	RESISTOR 0Ω, 1/6W	C60	NEH11CM-476NP	E CAPACITOR 47 μ F, 16V
C1	QCYA1EK-103	CAPACITOR 0.01 μ F, 25V	C61	QCYA1EK-103	CAPACITOR 0.01 μ F, 25V
C2	NEH11CM-476NP	E CAPACITOR 47 μ F, 16V	C62	QCYA1EK-223	CAPACITOR 0.022 μ F, 25V
C3	QCYA1EK-103	CAPACITOR 0.01 μ F, 25V	C63	QCYA1EK-223	CAPACITOR 0.022 μ F, 25V
C4	NEH51AM-107P	E CAPACITOR, BR-S800 100 μ F, 10V	C64	QCTA1CH-331	CAPACITOR 330pF, 16V
C5	NEH51AM-107P	E CAPACITOR, BR-S800 100 μ F, 10V	C65	QCYA1EK-103	CAPACITOR 0.01 μ F, 25V
C6	NEH11CM-226NP	E CAPACITOR, BR-S800 22 μ F, 16V	C66	NEH11CM-476NP	E CAPACITOR 47 μ F, 16V
C7	NEH11CM-226NP	E CAPACITOR, BR-S800 22 μ F, 16V	C67	QCYA1EK-103	CAPACITOR 0.01 μ F, 25V
C8	QCYA1EK-103	CAPACITOR, BR-S800 0.01 μ F, 25V	C68	QCYA1EK-223	CAPACITOR, BR-S800 0.022 μ F, 25V
C9	QCYA1HK-332	CAPACITOR, BR-S800 0.0033 μ F, 50V	C69	NEH11EM-475NZ	E CAPACITOR 4.7 μ F, 25V
C10	QCYA1EK-103	CAPACITOR, BR-S800 0.01 μ F, 25V	C70	QCYA1EK-223	CAPACITOR, BR-S800 0.022 μ F, 25V
C11	QCYA1EK-473	CAPACITOR, BR-S800 0.047 μ F, 25V	C71	NEH11EM-475NZ	E CAPACITOR, BR-S800 4.7 μ F, 25V
C12	NEH11EM-475NZ	E CAPACITOR, BR-S800 4.7 μ F, 25V	C72	NEH11EM-475NZ	E CAPACITOR 4.7 μ F, 25V
C13	NEH11EM-475NZ	E CAPACITOR, BR-S800 4.7 μ F, 25V	C73	NEH11EM-475NZ	E CAPACITOR, BR-S800 4.7 μ F, 25V
C14	QCYA1EK-103	CAPACITOR, BR-S800 0.01 μ F, 25V	C74	QCYA1EK-103	CAPACITOR 0.01 μ F, 25V
C15	NEN10JM-226NP	E CAPACITOR 22 μ F, 6.3V	C75	NEH11CM-476NP	E CAPACITOR 47 μ F, 16V
C16	QCTA1CH-390	CAPACITOR 39pF, 16V	C76	QCYA1EK-103	CAPACITOR 0.01 μ F, 25V
C17	QCTA1CH-121	CAPACITOR 120pF, 16V	C77	NEN11EM-475NZ	NP E CAPACITOR 4.7 μ F, 25V
C18	NEN11HM-105NZ	E CAPACITOR 1 μ F, 50V	C78	QCYA1EK-103	CAPACITOR 0.01 μ F, 25V
C19	QCYA1EK-103	CAPACITOR, BR-S800 0.01 μ F, 25V	C79	NEH11EM-475NZ	E CAPACITOR, BR-S800 4.7 μ F, 25V
C20	NEH11CM-476NP	E CAPACITOR, BR-S800 47 μ F, 16V	C80	NEH51AM-107P	E CAPACITOR 100 μ F, 10V
C21	QCYA1EK-103	CAPACITOR, BR-S800 0.01 μ F, 25V	C81	NEH51AM-107P	E CAPACITOR 100 μ F, 10V
C22	QCYA1EK-223	CAPACITOR, BR-S800 0.022 μ F, 25V	C82	NEH51AM-107P	E CAPACITOR 100 μ F, 10V
C23	QCTA1CH-100	CAPACITOR, BR-S800 10pF, 16V	C83	QCTA1CH-100	CAPACITOR 10pF, 16V
C24	QCTA1CH-330	CAPACITOR, BR-S800 33pF, 16V	C84	NEH11HM-105NZ	E CAPACITOR 1 μ F, 50V
C25	QCYA1EK-103	CAPACITOR, BR-S800 0.01 μ F, 25V	C85	NEH11CM-476NP	E CAPACITOR 47 μ F, 16V
C26	NEH11CM-476NP	E CAPACITOR, BR-S800 47 μ F, 16V			

#△ REF No.	PART No.	PART NAME, DESCRIPTION	#△ REF No.	PART No.	PART NAME, DESCRIPTION
C86	NEH51AM-227W	E CAPACITOR 220 μ F,10V	C143	QCYA1HK-153	CAPACITOR 0.015 μ F,50V
C87	QCYA1EK-103	CAPACITOR 0.01 μ F,25V	C144	NEH11HM-474NZ	E CAPACITOR 0.47 μ F,50V
C88	NEH11CM-476NP	E CAPACITOR 47 μ F,16V	C145	NEH11HM-225NZ	E CAPACITOR 2.2 μ F,50V
C89	QCYA1EK-103	CAPACITOR 0.01 μ F,25V	C146	QCTA1CH-471	CAPACITOR 470pF,16V
C90	QCYA1EK-223	CAPACITOR 0.022 μ F,25V	C149	QCYA1HK-102	CAPACITOR 0.001 μ F,50V
C91	QCYA1EK-223	CAPACITOR, BR-S800 0.022 μ F,25V	C150	NAT3112-400RZ	CHIP TRIMER
C92	QCYA1EK-223	CAPACITOR 0.022 μ F,25V	C151	QCTA1CH-390	CAPACITOR 39pF,16V
C93	QCYA1EK-223	CAPACITOR 0.022 μ F,25V	C152	QCYA1EK-103	CAPACITOR 0.01 μ F,25V
C94	QCYA1EK-103	CAPACITOR 0.01 μ F,25V	C153	QCYA1EK-223	CAPACITOR 0.022 μ F,25V
C95	NEH11CM-476NP	E CAPACITOR 47 μ F,16V	C154	NEH11CM-106N	E CAPACITOR 10 μ F,16V
C96	QCYA1EK-103	CAPACITOR 0.01 μ F,25V	C155	QCYA1EK-104	CAPACITOR 0.1 μ F,25V
C97	NEH51AM-107P	E CAPACITOR 100 μ F,10V	C156	QCTA1CH-330	CAPACITOR 33pF,16V
C98	NEH51AM-107P	E CAPACITOR 100 μ F,10V	C157	QCYA1EK-103	CAPACITOR 0.01 μ F,25V
C99	NEH51AM-107P	E CAPACITOR 100 μ F,10V	C158	NEH11EM-475NZ	E CAPACITOR 4.7 μ F,25V
C100	QCTA1CH-150	CAPACITOR 15pF,16V	C159	QCYA1EK-103	CAPACITOR 0.01 μ F,25V
C101	NEH11HM-105NZ	E CAPACITOR 1 μ F,50V	C160	NEH11CM-476NP	E CAPACITOR 47 μ F,16V
C102	NEH11CM-476NP	E CAPACITOR 47 μ F,16V	C161	QCYA1EK-103	CAPACITOR 0.01 μ F,25V
C103	NEH51AM-227W	E CAPACITOR 220 μ F,10V	C162	QCYA1EK-104	CAPACITOR 0.1 μ F,25V
C104	QCYA1EK-103	CAPACITOR 0.01 μ F,25V	C163	QCYA1EK-104	CAPACITOR 0.1 μ F,25V
C105	NEH51AM-227W	E CAPACITOR 220 μ F,10V	C164	QCYA1EK-103	CAPACITOR 0.01 μ F,25V
C106	QCYA1EK-103	CAPACITOR 0.01 μ F,25V	C165	QCYA1EK-103	CAPACITOR 0.01 μ F,25V
C107	QCYA1EK-103	CAPACITOR 0.01 μ F,25V	C166	NEH11CM-476NP	E CAPACITOR 47 μ F,16V
C108	NEH11HM-105NZ	E CAPACITOR 1 μ F,50V	C167	QCYA1EK-104	CAPACITOR 0.1 μ F,25V
C109	QCYA1EK-103	CAPACITOR 0.01 μ F,25V	C168	QCYA1EK-104	CAPACITOR 0.1 μ F,25V
C110	QCYA1EK-103	CAPACITOR 0.01 μ F,25V	C169	QCYA1EK-104	CAPACITOR 0.1 μ F,25V
C111	QCYA1EK-103	CAPACITOR 0.01 μ F,25V	C170	QCYA1EK-104	CAPACITOR 0.1 μ F,25V
C112	NEH11HM-224NZ	E CAPACITOR 0.22 μ F,50V	C171	QCYA1EK-104	CAPACITOR 0.1 μ F,25V
C113	QCYA1EK-223	CAPACITOR, BR-S800 0.022 μ F,25V	C172	QCTA1CH-100	CAPACITOR 10pF,16V
C114	QCYA1EK-103	CAPACITOR 0.01 μ F,25V	C173	QCYA1HK-102	CAPACITOR 0.001 μ F,50V
C115	QCTA1CH-220	CAPACITOR, BR-S800 22pF,16V	C174	QCYA1EK-104	CAPACITOR 0.1 μ F,25V
C116	NAT3112-400RZ	CHIP TRIMER, BR-S800	C175	QCYA1EK-103	CAPACITOR 0.01 μ F,25V
C117	QCTA1CH-120	CAPACITOR, BR-S500 12pF,16V	C176	QCYA1EK-104	CAPACITOR 0.1 μ F,25V
C118	QCYA1EK-103	CAPACITOR 0.01 μ F,25V	C177	QCYA1EK-103	CAPACITOR 0.01 μ F,25V
C119	QCYA1EK-103	CAPACITOR 0.01 μ F,25V	C178	QCYA1EK-103	CAPACITOR 0.01 μ F,25V
C120	QCYA1EK-103	CAPACITOR 0.01 μ F,25V	C179	NEH11CM-476NP	E CAPACITOR 47 μ F,16V
C121	QCYA1EK-103	CAPACITOR 0.01 μ F,25V	C180	QCYA1EK-103	CAPACITOR 0.01 μ F,25V
C122	QCYA1EK-103	CAPACITOR 0.01 μ F,25V	C183	QCYA1EK-223	CAPACITOR 0.022 μ F,25V
C123	NEH11CM-106N	E CAPACITOR 10 μ F,16V	C184	QCYA1EK-223	CAPACITOR 0.022 μ F,25V
C124	QCYA1EK-103	CAPACITOR 0.01 μ F,25V	C185	NEH11CM-476NP	E CAPACITOR 47 μ F,16V
C125	NEH11CM-106N	E CAPACITOR 10 μ F,16V	C186	QCYA1EK-103	CAPACITOR 0.01 μ F,25V
C126	QCYA1EK-103	CAPACITOR, BR-S800 0.01 μ F,25V	C187	QCYA1EK-103	CAPACITOR 0.01 μ F,25V
C127	QCYA1EK-103	CAPACITOR 0.01 μ F,25V	C188	NEH11CM-476NP	E CAPACITOR 47 μ F,16V
C128	NEH11HM-105NZ	E CAPACITOR 1 μ F,50V	C189	QCYA1EK-103	CAPACITOR 0.01 μ F,25V
C129	NEH11HM-105NZ	E CAPACITOR 1 μ F,50V	C190	NEH11CM-106N	E CAPACITOR 10 μ F,16V
C130	NEH11CM-106N	E CAPACITOR 10 μ F,16V	C191	NEH11CM-106N	E CAPACITOR 10 μ F,16V
C131	NEH11CM-106N	E CAPACITOR, BR-S800 10 μ F,16V	C192	NEH11CM-106N	E CAPACITOR 10 μ F,16V
C132	QCYA1EK-103	CAPACITOR 0.01 μ F,25V	C193	QCTA1CH-121	CAPACITOR 120pF,16V
C133	QCTA1CH-101	CAPACITOR 100pF,16V	C194	QCTA1CH-391	CAPACITOR 390pF,16V
C134	NEH11HM-104NZ	E CAPACITOR 0.1 μ F,50V	C195	NEH51AM-107P	E CAPACITOR 100 μ F,10V
C135	QCTA1CH-5R0	CAPACITOR 5pF,16V	C196	QCTA1CH-121	CAPACITOR 120pF,16V
C136	QCYA1HK-102	CAPACITOR 0.001 μ F,50V	C197	QCTA1CH-391	CAPACITOR 390pF,16V
C137	NAT3112-400RZ	CHIP TRIMER	C198	QCYA1EK-103	CAPACITOR 0.01 μ F,25V
C138	QCTA1CH-330	CAPACITOR 33pF,16V	C199	NEH11CM-476NP	E CAPACITOR 47 μ F,16V
C139	QCYA1EK-103	CAPACITOR 0.01 μ F,25V	C200	QCYA1EK-103	CAPACITOR 0.01 μ F,25V
C140	QCTA1CH-121	CAPACITOR 120pF,16V	C201	QCYA1EK-103	CAPACITOR 0.01 μ F,25V
C141	QCYA1EK-103	CAPACITOR 0.01 μ F,25V	C202	QCYA1EK-103	CAPACITOR 0.01 μ F,25V
C142	NEH11HM-105NZ	E CAPACITOR 1 μ F,50V	C203	QCYA1EK-103	CAPACITOR 0.01 μ F,25V

#△ REF No.	PART No.	PART NAME, DESCRIPTION		#△ REF No.	PART No.	PART NAME, DESCRIPTION	
C205	QCYA1 EK-103	CAPACITOR	0.01 μ F,25V	C269	QCYA1EK-683	CAPACITOR	0.068 μ F,25V
C207	QCYA1 EK-103	CAPACITOR	0.01 μ F,25V	C270	QCYA1EK-103	CAPACITOR	0.01 μ F,25V
C208	QCYA1 EK-103	CAPACITOR	0.01 μ F,25V				
C209	QCYA1 EK-103	CAPACITOR	0.01 μ F,25V	C271	QCTA1CH-180	CAPACITOR	18pF,16V
C210	NEH11 HM-105NZ	E CAPACITOR	1 μ F,50V	C272	QCTA1CH-560	CAPACITOR	56pF,16V
				C273	QCYA1EK-103	CAPACITOR	0.01 μ F,25V
C211	QCYA1 EK-103	CAPACITOR	0.01 μ F,25V	C274	QCYA1EK-104	CAPACITOR	0.1 μ F,25V
C212	NEH11 CM-476NP	E CAPACITOR	47 μ F,16V	C276	QCTA1CH-101	CAPACITOR	100pF,16V
C213	QCYA1 EK-103	CAPACITOR	0.01 μ F,25V	C277	QCYA1HK-102	CAPACITOR	0.001 μ F,50V
C216	QCYA1 EK-103	CAPACITOR	0.01 μ F,25V	C278	QCTA1CH-330	CAPACITOR, BR-S800	33pF,16V
C217	NEH11 CM-476NP	E CAPACITOR	47 μ F,16V	C279	QCYA1EK-103	CAPACITOR	0.01 μ F,25V
C218	QCYA1 EK-103	CAPACITOR	0.01 μ F,25V	C280	QCTA1CH-390	CAPACITOR	39pF,16V
C219	NEH11 HM-105NZ	E CAPACITOR	1 μ F,50V				
C220	QCYA1HK-102	CAPACITOR	0.001 μ F,50V	C281	QCYA1EK-103	CAPACITOR	0.01 μ F,25V
				C282	NEH11 CM-106N	E CAPACITOR	10 μ F,16V
C221	NEH11 HM-105NZ	E CAPACITOR	1 μ F,50V	C283	QCYA1EK-103	CAPACITOR	0.01 μ F,25V
C222	QCYA1 EK-104	CAPACITOR	0.1 μ F,25V	C284	QCYA1HK-103	CAPACITOR	0.01 μ F,50V
C223	QCYA1 EK-104	CAPACITOR	0.1 μ F,25V	C285	QCYA1HK-102	CAPACITOR	0.001 μ F,50V
C224	NEH11 HM-105NZ	E CAPACITOR	1 μ F,50V	C287	QCYA1HK-152	CAPACITOR	0.0015 μ F,50V
C225	NEH11 HM-105NZ	E CAPACITOR	1 μ F,50V	C288	QCYA1EK-103	M CAPACITOR	0.01 μ F,25V
C226	QCYA1HK-102	CAPACITOR	0.001 μ F,50V	C289	QCYA1EK-103	M CAPACITOR	0.01 μ F,25V
C227	QCYA1 EK-104	CAPACITOR	0.1 μ F,25V				
C228	NEH11 CM-106N	E CAPACITOR	10 μ F,16V	L2	PU58201-221J	COIL	220 μ H
C229	QCYA1 EK-103	CAPACITOR	0.01 μ F,25V	L3	YU41134-221JY	COIL, BR-S800	220 μ H
				L4	PU58201-150J	COIL, BR-S800	15 μ H
C232	NEH51 AM-107P	E CAPACITOR	100 μ F,10V	L5	YU41134-470JY	COIL, BR-S800	47 μ H
C233	QCYA1 EK-103	CAPACITOR	0.01 μ F,25V	L7	YU41134-221JY	COIL	220 μ H
C234	NEH51 AM-107P	E CAPACITOR	100 μ F,10V	L8	YU41134-470JY	COIL	47 μ H
C235	QCYA1 EK-103	CAPACITOR	0.01 μ F,25V	L9	YU41134-221JY	COIL	220 μ H
C236	QCYA1 EK-683	CAPACITOR	0.068 μ F,25V	L10	YU41134-470JY	COIL	47 μ H
C237	QRSA08J-0R0Y	RESISTOR	0 Ω , 1/10W				
C238	QCTA1CH-151	CAPACITOR	150pF,16V	L11	YU41134-470JY	COIL	47 μ H
C239	QCYA1 EK-683	CAPACITOR	0.068 μ F,25V	L12	YU41134-221JY	COIL	220 μ H
C240	QCYA1 EK-473	CAPACITOR	0.047 μ F,25V	L13	YU41134-470JY	COIL	47 μ H
				L14	YU41134-470JY	COIL	47 μ H
C241	QCYA1 EK-473	CAPACITOR	0.047 μ F,25V	L15	PU58201-560J	COIL	56 μ H
C242	QCYA1 EK-473	CAPACITOR	0.047 μ F,25V	L16	PU58201-470J	COIL	47 μ H
C243	QCYA1 EK-473	CAPACITOR	0.047 μ F,25V	L17	PU58201-100J	COIL	10 μ H
C244	QCYA1HK-273	CAPACITOR	0.027 μ F,50V	L19	PU58201-180J	COIL	18 μ H
C245	QCYA1HK-183	CAPACITOR	0.018 μ F,50V				
C247	QCYA1 EK-103	CAPACITOR	0.01 μ F,25V	L21	YU41134-221JY	COIL	220 μ H
C248	NEH51 AM-107P	E CAPACITOR	100 μ F,10V	L22	YU41134-221JY	COIL	220 μ H
C249	QCYA1 EK-103	CAPACITOR	0.01 μ F,25V	L25	YU41134-221JY	COIL	220 μ H
C250	QCYA1 EK-103	CAPACITOR	0.01 μ F,25V	L26	PU58201-330J	COIL	33 μ H
				L27	PU58201-330J	COIL	33 μ H
C251	QCTA1CH-220	CAPACITOR	22pF,16V	L28	YU41134-221JY	COIL	220 μ H
C252	QCTA1CH-560	CAPACITOR	56pF,16V	L29	YU41134-221JY	COIL	220 μ H
C253	QCYA1 EK-103	CAPACITOR	0.01 μ F,25V	L30	YU41134-221JY	COIL	220 μ H
C254	QCYA1 EK-103	CAPACITOR	0.01 μ F,25V				
C255	NEH51 AM-107P	E CAPACITOR	100 μ F,10V	L33	YU41134-470JY	COIL, BR-S800	47 μ H
C256	QCYA1 EK-103	CAPACITOR	0.01 μ F,25V	L33	YU41134-221JY	COIL, BR-S500	220 μ H
C258	QCYA1 EK-683	CAPACITOR	0.068 μ F,25V	L35	PU58201-560J	COIL	56 μ H
C259	QCYA1 EK-103	CAPACITOR	0.01 μ F,25V	L36	PU58201-220J	COIL	22 μ H
C260	NEH11 HM-105NZ	E CAPACITOR	1 μ F,50V	L37	PU58201-560J	COIL	56 μ H
				L38	PU58201-220J	COIL	22 μ H
C261	QCYA1HK-153	CAPACITOR	0.015 μ F,50V	L39	PU58201-390J	COIL	39 μ H
C262	QCTA1CH-471	CAPACITOR	470pF,16V				
C263	QCTA1CH-151	CAPACITOR	150pF,16V	LPF1	PELN0320	LOW PASS FILTER, BR-S800	
C264	QCYA1 EK-103	CAPACITOR	0.01 μ F,25V	LPF2	PELN0321	LOW PASS FILTER	
C265	QCYA1 EK-103	CAPACITOR	0.01 μ F,25V	LPF3	PELN0321	LOW PASS FILTER	
C266	QCYA1 EK-103	CAPACITOR	0.01 μ F,25V	LPF4	PGZ01328-R	LOW PASS FILTER	
C267	QCYA1 EK-103	CAPACITOR	0.01 μ F,25V				
C268	QCYA1 EK-103	CAPACITOR	0.01 μ F,25V				

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#	△	REF No.	PART No.	PART NAME, DESCRIPTION
		LPF5	PELN0321	LOW PASS FILTER
		BPF1	PGZ01893-P	BAND PASS FILTER
		BPF2	PGZ01980-R	BAND PASS FILTER
		BPF3	PGZ01982-R	BAND PASS FILTER
△		X1	PGZ02016	CRYSTAL RESONATOR
△		K1	PGZ00627Z	CHIP.F.BEADS
△		K2	PGZ00627Z	CHIP.F.BEADS
△		K3	PGZ00627Z	CHIP.F.BEADS
△		K4	PGZ00627Z	CHIP.F.BEADS
△		K5	PGZ00627Z	CHIP.F.BEADS
△		K6	PGZ00627Z	CHIP.F.BEADS
△		K7	PGZ00627Z	CHIP.F.BEADS
△		K8	PGZ00627Z	CHIP.F.BEADS
△		K9	PGZ00627Z	CHIP.F.BEADS
△		K10	PGZ00627Z	CHIP.F.BEADS
△		TH2	ERT-D2FGL102S	THERMISTOR
		SPC1	PGZ01128-02	SPACER, × 2
		TP1	SCV1880-001	TEST PIN, × 25
		TP2	SCV1880-001	TEST PIN, × 4(GND)
		CN1	PGZ01937-44	MALE CONNECTOR
		CN2	PGZ01937-44	MALE CONNECTOR
		CN3	PGZ01756-11	CONNECTOR
		CN4	PGZ01756-10	CONNECTOR

VIDEO-2 BOARD ASSEMBLY <11>

PWBA	PRK20263A-02	VIDEO2 BOARD ASSY, BR-S800
PWBA	PRK20263B-02	VIDEO2 BOARD ASSY, BR-S500
IC1	VC2076MP-XE	IC
IC2	CXL5505M	F IC(DRY)
IC3	JCP0032-HT	IC
IC4	TC7S04F	IC
IC5	TC7S04F	IC
IC6	TC74HC4538AF	IC
IC7	TC7S04F	IC
IC8	MM1111XF	IC
IC13	TC74HC4094AF	IC
IC14	TC7S04F	IC
IC15	MM1111XF	IC, BR-S800
Q1	2SC2412K(RS)	TRANSISTOR

#	△	REF No.	PART No.	PART NAME, DESCRIPTION
Q2			2SC2412K(RS)	TRANSISTOR
Q3			2SA1037K(QR)	TRANSISTOR
Q4			2SC2412K(RS)	TRANSISTOR
Q5			2SC2412K(RS)	TRANSISTOR
Q7			2SA1037K(QR)	TRANSISTOR
Q8			2SC2412K(RS)	TRANSISTOR
Q9			2SC2412K(RS)	TRANSISTOR
Q10			2SA1037K(QR)	TRANSISTOR
Q11			2SA1037K(QR)	TRANSISTOR
Q12			2SC2412K(RS)	TRANSISTOR
Q13			2SC2412K(RS)	TRANSISTOR
Q14			DTC144EK	TRANSISTOR, BR-S800
Q15			DTC144EK	TRANSISTOR, BR-S800
Q16			2SC2412K(RS)	TRANSISTOR, BR-S800
Q17			2SA1037K(QR)	TRANSISTOR, BR-S800
Q18			2SC2412K(RS)	TRANSISTOR, BR-S800
Q19			2SC2412K(RS)	TRANSISTOR
Q20			2SA1037K(QR)	TRANSISTOR
Q21			2SC2412K(RS)	TRANSISTOR
Q22			2SA1037K(QR)	TRANSISTOR
Q23			DTA124EK	TRANSISTOR
Q24			DTC144EK	TRANSISTOR
Q25			2SC2412K(RS)	TRANSISTOR
Q26			DTC144EK	TRANSISTOR
Q27			DTC144EK	TRANSISTOR
Q28			DTC144WK	TRANSISTOR
Q30			DTC124EK	TRANSISTOR
Q31			DTC124EK	TRANSISTOR
Q32			DTC124EK	TRANSISTOR
Q33			2SC2412K(RS)	TRANSISTOR
Q34			DTC144EK	TRANSISTOR
Q35			2SC2412K(RS)	TRANSISTOR, BR-S800
Q36			2SA1037K(QR)	TRANSISTOR, BR-S800
Q37			2SC2412K(RS)	TRANSISTOR, BR-S800
Q38			2SC2412K(RS)	TRANSISTOR, BR-S800
Q39			2SC2412K(RS)	TRANSISTOR, BR-S800
Q40			2SA1037K(QR)	TRANSISTOR, BR-S800
Q41			2SC2412K(RS)	TRANSISTOR, BR-S800
Q42			2SC2412K(RS)	TRANSISTOR, BR-S800
Q44			2SC2412K(RS)	TRANSISTOR, BR-S800
Q45			2SA1037K(QR)	TRANSISTOR, BR-S800
Q46			2SC2412K(RS)	TRANSISTOR, BR-S800
Q47			DTC144EK	TRANSISTOR, BR-S800
Q48			2SC2412K(RS)	TRANSISTOR
Q49			DTC144EK	TRANSISTOR
Q50			DTC144EK	TRANSISTOR
Q51			2SA1037K(QR)	TRANSISTOR
Q52			2SC2412K(RS)	TRANSISTOR
Q53			2SC2412K(RS)	TRANSISTOR
Q54			2SC2412K(RS)	TRANSISTOR
Q55			2SC2412K(RS)	TRANSISTOR
Q56			DTC144EK	TRANSISTOR
Q57			DTC144EK	TRANSISTOR
Q58			2SC2412K(RS)	TRANSISTOR
Q59			2SA1037K(QR)	TRANSISTOR
Q60			2SA1037K(QR)	TRANSISTOR
Q61			2SC2412K(RS)	TRANSISTOR

#△ REF No.	PART No.	PART NAME, DESCRIPTION	#△ REF No.	PART No.	PART NAME, DESCRIPTION
Q63	2SC2412K(RS)	TRANSISTOR	D22	DAN202K	DIODE
Q64	DTC144EK	TRANSISTOR	D23	DAN202K	DIODE
Q65	2SC2412K(RS)	TRANSISTOR	D25	1SS99	DIODE
Q66	2SA1037K(QR)	TRANSISTOR	D26	1SS99	DIODE
Q67	DTC144EK	TRANSISTOR	D27	1SS99	DIODE
Q68	2SC2412K(RS)	TRANSISTOR	D28	DAN202K	DIODE
Q69	2SC2412K(RS)	TRANSISTOR	D29	DAN202K	DIODE
Q70	2SC2412K(RS)	TRANSISTOR	D30	DAN202K	DIODE, BR-S800
Q71	2SC2412K(RS)	TRANSISTOR	D32	DAN202K	DIODE
Q72	2SA1037K(QR)	TRANSISTOR			
Q73	2SA1037K(QR)	TRANSISTOR, BR-S800	R1	NVP1415-201N	V RESISTOR, BR-S800 200Ω, 1/4W
Q74	2SC2412K(RS)	TRANSISTOR	R2	NVP1415-102N	V RESISTOR, BR-S800 1kΩ, 1/4W
Q75	2SA1037K(QR)	TRANSISTOR	R3	NVP1415-501N	V RESISTOR 500Ω, 1/4W
Q76	2SC2412K(RS)	TRANSISTOR	R4	NVP1415-203N	V RESISTOR, BR-S800 20kΩ, 1/4W
Q77	2SC2412K(RS)	TRANSISTOR	R5	NVP1415-502N	V RESISTOR, BR-S800 5kΩ, 1/4W
Q81	DTC144EK	TRANSISTOR	R6	NVP1415-502N	V RESISTOR, BR-S800 5kΩ, 1/4W
Q82	2SC2412K(RS)	TRANSISTOR	R7	NVP1415-103N	V RESISTOR, BR-S800 10kΩ, 1/4W
Q83	2SC2412K(RS)	TRANSISTOR	R8	NVP1415-103N	V RESISTOR, BR-S800 10kΩ, 1/4W
Q84	2SC2412K(RS)	TRANSISTOR	R9	NVP1415-202N	V RESISTOR, BR-S800 2kΩ, 1/4W
Q85	2SA1037K(QR)	TRANSISTOR	R10	NVP1416-203N	V RESISTOR 20kΩ, 1/4W
Q86	2SC2412K(RS)	TRANSISTOR	R11	NVP1416-502N	V RESISTOR 5kΩ, 1/4W
Q87	2SC2412K(RS)	TRANSISTOR	R12	NVP1415-501N	V RESISTOR, BR-S800 500Ω, 1/4W
Q88	2SA1037K(QR)	TRANSISTOR	R13	NVP1415-501N	V RESISTOR, BR-S800 500Ω, 1/4W
Q89	2SC2412K(RS)	TRANSISTOR	R14	NVP1415-501N	V RESISTOR, BR-S800 500Ω, 1/4W
Q90	2SC2412K(RS)	TRANSISTOR	R15	NVP1415-501N	V RESISTOR, BR-S800 500Ω, 1/4W
Q92	2SA1037K(QR)	TRANSISTOR	R16	NVP1416-502N	V RESISTOR 5kΩ, 1/4W
Q93	2SC2412K(RS)	TRANSISTOR	R17	NVP1416-502N	V RESISTOR 5kΩ, 1/4W
Q94	2SA1037K(QR)	TRANSISTOR	R18	NVP1416-202N	V RESISTOR 2kΩ, 1/4W
Q95	2SC2412K(RS)	TRANSISTOR	R19	NVP1416-202N	V RESISTOR 2kΩ, 1/4W
Q96	2SC2412K(RS)	TRANSISTOR	R20	NVP1416-202N	V RESISTOR 2kΩ, 1/4W
Q97	2SC2412K(RS)	TRANSISTOR	R21	NVP1416-103N	V RESISTOR 10kΩ, 1/4W
Q98	2SC2412K(RS)	TRANSISTOR	R101	QRSA08J-223YN	RESISTOR 22kΩ, 1/10W
Q99	2SC2412K(RS)	TRANSISTOR	R102	QRSA08J-153YN	RESISTOR 15kΩ, 1/10W
Q100	2SC2412K(RS)	TRANSISTOR	R103	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W
Q101	2SC2412K(RS)	TRANSISTOR	R104	QRSA08J-222YN	RESISTOR 2.2kΩ, 1/10W
Q102	2SC2412K(RS)	TRANSISTOR	R105	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W
Q103	2SC2412K(RS)	TRANSISTOR, BR-S800	R106	QRSA08J-331YN	RESISTOR 330Ω, 1/10W
Q104	2SC2412K(RS)	TRANSISTOR	R107	QRSA08J-101YN	RESISTOR 100Ω, 1/10W
Q105	2SC2412K(RS)	TRANSISTOR, BR-S800	R108	QRSA08J-182YN	RESISTOR 1.8kΩ, 1/10W
D1	DAN202K	DIODE, BR-S800	R109	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W
D3	DAN202K	DIODE	R110	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W
D4	DAN202K	DIODE	R111	QRSA08J-183YN	RESISTOR 18kΩ, 1/10W
D5	DAN202K	DIODE	R112	QRSA08J-103YN	RESISTOR 10kΩ, 1/10W
D6	DAN202K	DIODE, BR-S800	R113	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W
D7	DAN202K	DIODE	R114	NRVA62D-911N	RESISTOR 910Ω, 1/16W
D8	DAN202K	DIODE	R117	QRSA08J-471YN	RESISTOR 470Ω, 1/10W
D11	1SS99	DIODE, BR-S800	R118	QRSA08J-122YN	RESISTOR 1.2kΩ, 1/10W
D12	1SS99	DIODE, BR-S800	R119	QRSA08J-0R0Y	RESISTOR 0Ω, 1/10W
D13	1SS99	DIODE, BR-S800	R121	QRSA08J-391YN	RESISTOR 390Ω, 1/10W
D14	1SS99	DIODE, BR-S800	R122	QRSA08J-242YN	RESISTOR 2.4kΩ, 1/10W
D15	1SS99	DIODE	R123	QRSA08J-101YN	RESISTOR, BR-S500 100Ω, 1/10W
D16	1SS99	DIODE	R124	QRSA08J-181YN	RESISTOR, BR-S800 180Ω, 1/10W
D17	DAN202K	DIODE	R125	NRVA62D-301N	RESISTOR, BR-S500 300Ω, 1/16W
D19	1SS99	DIODE	R126	QRSA08J-183YN	RESISTOR 18kΩ, 1/10W
D20	1SS99	DIODE	R127	QRSA08J-103YN	RESISTOR 10kΩ, 1/10W
			R128	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W

#	REF No.	PART No.	PART NAME, DESCRIPTION
R129	QRSA08J-102 YN	RESISTOR	1k Ω , 1/10W
R130	QRSA08J-103 YN	RESISTOR	10k Ω , 1/10W
R131	QRSA08J-392 YN	RESISTOR	3.9k Ω , 1/10W
R132	QRSA08J-102 YN	RESISTOR	1k Ω , 1/10W
R133	QRSA08J-122 YN	RESISTOR	1.2k Ω , 1/10W
R134	QRSA08J-102 YN	RESISTOR	1k Ω , 1/10W
R135	QRSA08J-561 YN	RESISTOR	560 Ω , 1/10W
R136	QRSA08J-561 YN	RESISTOR, BR-S800	560 Ω , 1/10W
R137	NRVA62D-332N	RESISTOR	3.3k Ω , 1/16W
R138	NRVA62D-332N	RESISTOR	3.3k Ω , 1/16W
R139	NRVA62D-272N	RESISTOR	2.7k Ω , 1/16W
R140	NRVA62D-332N	RESISTOR	3.3k Ω , 1/16W
R141	NRVA62D-151N	CMF RESISTOR	150 Ω , 1/16W
R142	NRVA62D-391N	CMF RESISTOR	390 Ω , 1/16W
R143	NRVA62D-122N	RESISTOR	1.2k Ω , 1/16W
R144	NRVA62D-162N	CMF RESISTOR	1.6k Ω , 1/16W
R145	NRVA62D-102N	RESISTOR	1k Ω , 1/16W
R146	NRVA62D-152N	RESISTOR	1.5k Ω , 1/16W
R147	NRVA62D-102N	RESISTOR	1k Ω , 1/16W
R148	NRVA62D-471N	RESISTOR	470 Ω , 1/16W
R149	QRSA08J-102 YN	RESISTOR	1k Ω , 1/10W
R150	QRSA08J-823 YN	RESISTOR	82k Ω , 1/10W
R151	QRSA08J-273 YN	RESISTOR	27k Ω , 1/10W
R152	QRSA08J-123 YN	RESISTOR	12k Ω , 1/10W
R153	QRSA08J-102 YN	RESISTOR	1k Ω , 1/10W
R154	QRSA08J-331 YN	RESISTOR	330 Ω , 1/10W
R155	QRSA08J-471 YN	RESISTOR	470 Ω , 1/10W
R156	QRSA08J-153 YN	RESISTOR	15k Ω , 1/10W
R157	QRSA08J-223 YN	RESISTOR	22k Ω , 1/10W
R158	QRSA08J-152 YN	RESISTOR	1.5k Ω , 1/10W
R159	QRSA08J-393 YN	RESISTOR, BR-S800	39k Ω , 1/10W
R160	QRSA08J-223 YN	RESISTOR, BR-S800	22k Ω , 1/10W
R161	QRSA08J-102 YN	RESISTOR, BR-S800	1k Ω , 1/10W
R162	QRSA08J-102 YN	RESISTOR, BR-S800	1k Ω , 1/10W
R163	QRSA08J-102 YN	RESISTOR, BR-S800	1k Ω , 1/10W
R164	QRSA08J-102 YN	RESISTOR, BR-S800	1k Ω , 1/10W
R165	QRSA08J-102 YN	RESISTOR, BR-S800	1k Ω , 1/10W
R166	QRSA08J-561 YN	RESISTOR, BR-S800	560 Ω , 1/10W
R167	QRSA08J-561 YN	RESISTOR, BR-S800	560 Ω , 1/10W
R168	QRSA08J-182 YN	RESISTOR	1.8k Ω , 1/10W
R169	QRSA08J-101 YN	RESISTOR	100 Ω , 1/10W
R170	QRSA08J-222 YN	RESISTOR	2.2k Ω , 1/10W
R171	QRSA08J-222 YN	RESISTOR	2.2k Ω , 1/10W
R172	QRSA08J-102 YN	RESISTOR	1k Ω , 1/10W
R173	QRSA08J-393 YN	RESISTOR	39k Ω , 1/10W
R174	QRSA08J-103 YN	RESISTOR	10k Ω , 1/10W
R175	QRSA08J-123 YN	RESISTOR, BR-S800	12k Ω , 1/10W
R176	QRSA08J-123 YN	RESISTOR, BR-S800	12k Ω , 1/10W
R177	QRSA08J-103 YN	RESISTOR	10k Ω , 1/10W
R178	QRSA08J-0R0Y	RESISTOR	0 Ω , 1/10W
R179	QRSA08J-393 YN	RESISTOR	39k Ω , 1/10W
R180	QRSA08J-123 YN	RESISTOR	12k Ω , 1/10W
R181	QRSA08J-563 YN	RESISTOR	56k Ω , 1/10W
R182	QRSA08J-103 YN	RESISTOR	10k Ω , 1/10W
R183	QRSA08J-332 YN	RESISTOR	3.3k Ω , 1/10W
R184	QRSA08J-122 YN	RESISTOR	1.2k Ω , 1/10W
R185	QRSA08J-103 YN	RESISTOR	10k Ω , 1/10W

#	REF No.	PART No.	PART NAME, DESCRIPTION
R186	QRSA08J-563 YN	RESISTOR	56k Ω , 1/10W
R187	QRSA08J-563 YN	RESISTOR	56k Ω , 1/10W
R188	QRSA08J-561 YN	RESISTOR	560 Ω , 1/10W
R189	QRSA08J-103 YN	RESISTOR	10k Ω , 1/10W
R190	QRSA08J-152 YN	RESISTOR	1.5k Ω , 1/10W
R191	QRSA08J-223 YN	RESISTOR	22k Ω , 1/10W
R192	NRVA62D-152N	RESISTOR	1.5k Ω , 1/16W
R193	NRVA62D-152N	RESISTOR	1.5k Ω , 1/16W
R194	NRVA62D-152N	RESISTOR	1.5k Ω , 1/16W
R196	NRVA62D-682N	RESISTOR	6.8k Ω , 1/16W
R197	NRVA62D-152N	RESISTOR	1.5k Ω , 1/16W
R198	NRVA62D-391N	CMF RESISTOR	390 Ω , 1/16W
R199	NRVA62D-562N	RESISTOR	5.6k Ω , 1/16W
R200	NRVA62D-273N	RESISTOR	27k Ω , 1/16W
R201	NRVA62D-183N	RESISTOR	18k Ω , 1/16W
R202	QRSA08J-475 YN	RESISTOR	4.7M Ω , 1/10W
R203	QRSA08J-102 YN	RESISTOR	1k Ω , 1/10W
R204	QRSA08J-392 YN	RESISTOR	3.9k Ω , 1/10W
R205	QRSA08J-272 YN	RESISTOR	2.7k Ω , 1/10W
R206	QRSA08J-562 YN	RESISTOR	5.6k Ω , 1/10W
R207	QRSA08J-272 YN	RESISTOR	2.7k Ω , 1/10W
R209	QRSA08J-222 YN	RESISTOR	2.2k Ω , 1/10W
R210	QRSA08J-272 YN	RESISTOR	2.7k Ω , 1/10W
R211	NRVA62D-392N	RESISTOR, BR-S800	3.9k Ω , 1/16W
R212	NRVA62D-562N	RESISTOR, BR-S800	5.6k Ω , 1/16W
R213	NRVA62D-183N	RESISTOR, BR-S800	18k Ω , 1/16W
R214	NRVA62D-822N	RESISTOR, BR-S800	8.2k Ω , 1/16W
R215	NRVA62D-392N	RESISTOR, BR-S800	3.9k Ω , 1/16W
R216	NRVA62D-822N	RESISTOR, BR-S800	8.2k Ω , 1/16W
R217	NRVA62D-122N	RESISTOR, BR-S800	1.2k Ω , 1/16W
R218	NRVA62D-104N	RESISTOR, BR-S800	100k Ω , 1/16W
R219	QRSA08J-102 YN	RESISTOR, BR-S800	1k Ω , 1/10W
R220	QRSA08J-331 YN	RESISTOR, BR-S800	330 Ω , 1/10W
R221	QRSA08J-181 YN	RESISTOR	180 Ω , 1/10W
R222	QRSA08J-102 YN	RESISTOR	1k Ω , 1/10W
R223	QRSA08J-102 YN	RESISTOR, BR-S800	1k Ω , 1/10W
R224	QRSA08J-561 YN	RESISTOR, BR-S800	560 Ω , 1/10W
R225	QRSA08J-331 YN	RESISTOR, BR-S800	330 Ω , 1/10W
R226	QRSA08J-181 YN	RESISTOR, BR-S800	180 Ω , 1/10W
R227	QRSA08J-103 YN	RESISTOR, BR-S800	10k Ω , 1/10W
R228	QRSA08J-103 YN	RESISTOR, BR-S800	10k Ω , 1/10W
R229	QRSA08J-102 YN	RESISTOR, BR-S800	1k Ω , 1/10W
R230	QRSA08J-151 YN	RESISTOR, BR-S800	150 Ω , 1/10W
R231	QRSA08J-102 YN	RESISTOR, BR-S800	1k Ω , 1/10W
R232	QRSA08J-222 YN	RESISTOR, BR-S800	2.2k Ω , 1/10W
R233	QRSA08J-331 YN	RESISTOR, BR-S800	330 Ω , 1/10W
R234	QRSA08J-221 YN	RESISTOR, BR-S800	220 Ω , 1/10W
R235	QRSA08J-102 YN	RESISTOR, BR-S800	1k Ω , 1/10W
R236	QRSA08J-561 YN	RESISTOR, BR-S800	560 Ω , 1/10W
R237	QRSA08J-561 YN	RESISTOR, BR-S800	560 Ω , 1/10W
R238	QRSA08J-181 YN	RESISTOR, BR-S800	180 Ω , 1/10W
R239	QRSA08J-183 YN	RESISTOR, BR-S800	180 Ω , 1/10W
R240	QRSA08J-103 YN	RESISTOR, BR-S800	10k Ω , 1/10W
R241	QRSA08J-102 YN	RESISTOR, BR-S800	1k Ω , 1/10W
R242	QRSA08J-471 YN	RESISTOR, BR-S800	470 Ω , 1/10W
R243	QRSA08J-102 YN	RESISTOR, BR-S800	1k Ω , 1/10W
R244	QRSA08J-331 YN	RESISTOR, BR-S800	330 Ω , 1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	#△ REF No.	PART No.	PART NAME, DESCRIPTION
R245	QRSA08J-181YN	RESISTOR, BR-S800 180Ω,1/10W	R305	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
R246	QRSA08J-103YN	RESISTOR, BR-S800 10kΩ,1/10W	R306	QRSA08J-471YN	RESISTOR 470Ω,1/10W
R247	QRSA08J-103YN	RESISTOR, BR-S800 10kΩ,1/10W	R307	QRSA08J-333YN	RESISTOR 33kΩ,1/10W
R248	QRSA08J-102YN	RESISTOR, BR-S800 1kΩ,1/10W	R308	QRSA08J-273YN	RESISTOR 27kΩ,1/10W
R249	QRSA08J-151YN	RESISTOR, BR-S800 150Ω,1/10W	R309	QRSA08J-561YN	RESISTOR 560Ω,1/10W
R250	QRSA08J-102YN	RESISTOR, BR-S800 1kΩ,1/10W	R310	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R251	QRSA08J-222YN	RESISTOR, BR-S800 2.2kΩ,1/10W	R311	QRSA08J-471YN	RESISTOR 470Ω,1/10W
R252	QRSA08J-271YN	RESISTOR, BR-S800 270Ω,1/10W	R312	QRSA08J-333YN	RESISTOR 33kΩ,1/10W
R253	QRSA08J-271YN	RESISTOR, BR-S800 270Ω,1/10W	R313	QRSA08J-223YN	RESISTOR 22kΩ,1/10W
R254	QRSA08J-102YN	RESISTOR, BR-S800 1kΩ,1/10W	R314	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R255	QRSA08J-561YN	RESISTOR, BR-S800 560Ω,1/10W	R315	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R256	QRSA08J-561YN	RESISTOR, BR-S800 560Ω,1/10W	R316	QRSA08J-151YN	RESISTOR 150Ω,1/10W
R257	QRSA08J-181YN	RESISTOR, BR-S800 180Ω,1/10W	R317	QRSA08J-471YN	RESISTOR 470Ω,1/10W
R258	QRSA08J-183YN	RESISTOR, BR-S800 18kΩ,1/10W	R318	QRSA08J-471YN	RESISTOR 470Ω,1/10W
R259	QRSA08J-103YN	RESISTOR, BR-S800 10kΩ,1/10W	R319	QRSA08J-272YN	RESISTOR 2.7kΩ,1/10W
R260	QRSA08J-102YN	RESISTOR, BR-S800 1kΩ,1/10W	R320	QRSA08J-561YN	RESISTOR 560Ω,1/10W
R261	QRSA08J-391YN	RESISTOR, BR-S800 390Ω,1/10W	R321	QRSA08J-561YN	RESISTOR 560Ω,1/10W
R262	QRSA08J-393YN	RESISTOR, BR-S800 39kΩ,1/10W	R322	QRSA08J-272YN	RESISTOR 2.7kΩ,1/10W
R263	QRSA08J-183YN	RESISTOR, BR-S800 18kΩ,1/10W	R323	QRSA08J-822YN	RESISTOR 8.2kΩ,1/10W
R264	QRSA08J-471YN	RESISTOR, BR-S800 470Ω,1/10W	R324	QRSA08J-561YN	RESISTOR 560Ω,1/10W
R266	QRSA08J-0R0Y	RESISTOR, BR-S800 0Ω,1/10W	R325	QRSA08J-681YN	RESISTOR 680Ω,1/10W
R267	QRSA08J-391YN	RESISTOR, BR-S800 390Ω,1/10W	R327	QRSA08J-473YN	RESISTOR 47kΩ,1/10W
R268	QRSA08J-561YN	RESISTOR, BR-S800 560Ω,1/10W	R328	QRSA08J-123YN	RESISTOR 12kΩ,1/10W
R269	QRSA08J-391YN	RESISTOR, BR-S800 390Ω,1/10W	R329	QRSA08J-681YN	RESISTOR 680Ω,1/10W
R270	QRSA08J-101YN	RESISTOR, BR-S800 100Ω,1/10W	R330	QRSA08J-680YN	RESISTOR 68Ω,1/10W
R271	QRSA08J-102YN	RESISTOR, BR-S800 1kΩ,1/10W	R331	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R272	QRSA08J-681YN	RESISTOR, BR-S800 680Ω,1/10W	R332	QRSA08J-560YN	RESISTOR 56Ω,1/10W
R273	QRSA08J-161YN	RESISTOR, BR-S800 160Ω,1/10W	R333	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R274	QRSA08J-122YN	RESISTOR 1.2kΩ,1/10W	R334	QRSA08J-152YN	RESISTOR 1.5kΩ,1/10W
R275	QRSA08J-122YN	RESISTOR 1.2kΩ,1/10W	R335	QRSA08J-182YN	RESISTOR 1.8kΩ,1/10W
R276	QRSA08J-333YN	RESISTOR 33kΩ,1/10W	R336	QRSA08J-272YN	RESISTOR 2.7kΩ,1/10W
R277	QRSA08J-273YN	RESISTOR 27kΩ,1/10W	R337	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R279	QRSA08J-471YN	RESISTOR 470Ω,1/10W	R338	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R280	QRSA08J-102YN	RESISTOR 1kΩ,1/10W	R339	QRSA08J-393YN	RESISTOR 39kΩ,1/10W
R281	QRSA08J-101YN	RESISTOR 100Ω,1/10W	R340	QRSA08J-153YN	RESISTOR 15kΩ,1/10W
R282	QRSA08J-183YN	RESISTOR 18kΩ,1/10W	R342	QRSA08J-391YN	RESISTOR 390Ω,1/10W
R283	QRSA08J-393YN	RESISTOR 39kΩ,1/10W	R343	QRSA08J-821YN	RESISTOR 820Ω,1/10W
R284	QRSA08J-821YN	RESISTOR 820Ω,1/10W	R344	QRSA08J-681YN	RESISTOR 680Ω,1/10W
R285	QRSA08J-821YN	RESISTOR 820Ω,1/10W	R346	QRSA08J-393YN	RESISTOR 39kΩ,1/10W
R287	QRSA08J-471YN	RESISTOR 470Ω,1/10W	R347	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
R288	QRSA08J-391YN	RESISTOR 390Ω,1/10W	R348	QRSA08J-561YN	RESISTOR 560Ω,1/10W
R289	QRSA08J-681YN	RESISTOR 680Ω,1/10W	R349	QRSA08J-561YN	RESISTOR 560Ω,1/10W
R290	QRSA08J-331YN	RESISTOR 330Ω,1/10W	R350	QRSA08J-392YN	RESISTOR 3.9kΩ,1/10W
R291	QRSA08J-393YN	RESISTOR 39kΩ,1/10W	R351	QRSA08J-271YN	RESISTOR 270Ω,1/10W
R292	QRSA08J-103YN	RESISTOR 10kΩ,1/10W	R353	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
R293	QRSA08J-471YN	RESISTOR 470Ω,1/10W	R354	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R294	QRSA08J-102YN	RESISTOR 1kΩ,1/10W	R355	QRSA08J-475YN	RESISTOR 4.7MΩ,1/10W
R295	QRSA08J-562YN	RESISTOR 5.6kΩ,1/10W	R356	QRSA08J-123YN	RESISTOR, BR-S800 12kΩ,1/10W
R296	NRVA62D-104N	RESISTOR 100kΩ,1/16W	R357	QRSA08J-123YN	RESISTOR, BR-S800 12kΩ,1/10W
R297	QRSA08J-104YN	RESISTOR 100kΩ,1/10W	R358	QRSA08J-223YN	RESISTOR 22kΩ,1/10W
R298	QRSA08J-122YN	RESISTOR 1.2kΩ,1/10W	R359	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
R299	QRSA08J-122YN	RESISTOR 1.2kΩ,1/10W	R360	QRSA08J-222YN	RESISTOR 2.2kΩ,1/10W
R300	QRSA08J-122YN	RESISTOR 1.2kΩ,1/10W	R361	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R301	QRSA08J-272YN	RESISTOR 2.7kΩ,1/10W	R362	QRSA08J-101YN	RESISTOR 100Ω,1/10W
R302	QRSA08J-122YN	RESISTOR 1.2kΩ,1/10W	R363	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R303	QRSA08J-562YN	RESISTOR 5.6kΩ,1/10W	R365	QRSA08J-392YN	RESISTOR 3.9kΩ,1/10W
R304	QRSA08J-223YN	RESISTOR 22kΩ,1/10W	R366	QRSA08J-392YN	RESISTOR 3.9kΩ,1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	#△ REF No.	PART No.	PART NAME, DESCRIPTION
R367	QRSA08J-153YN	RESISTOR 15kΩ, 1/10W	R433	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W
R368	QRSA08J-153YN	RESISTOR 15kΩ, 1/10W	R434	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W
R369	QRSA08J-392YN	RESISTOR 3.9kΩ, 1/10W	R435	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W
			R436	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W
R378	QRSA08J-471YN	RESISTOR 470Ω, 1/10W	R437	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W
R379	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W	R438	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W
R380	QRSA08J-223YN	RESISTOR 22kΩ, 1/10W	R439	QRSA08J-0R0Y	RESISTOR, BR-S500 0Ω, 1/10W
			R440	QRSA08J-103YN	RESISTOR, BR-S800 10kΩ, 1/10W
R381	QRSA08J-393YN	RESISTOR 39kΩ, 1/10W			
R382	QRSA08J-392YN	RESISTOR 3.9kΩ, 1/10W	R441	QRSA08J-152YN	RESISTOR, BR-S800 1.5kΩ, 1/10W
R383	QRSA08J-392YN	RESISTOR 3.9kΩ, 1/10W	R442	QRSA08J-151YN	RESISTOR 150Ω, 1/10W
R384	QRSA08J-331YN	RESISTOR 330Ω, 1/10W	R443	QRSA08J-561YN	RESISTOR 560Ω, 1/10W
R385	QRSA08J-562YN	RESISTOR 5.6kΩ, 1/10W	R444	QRSA08J-103YN	RESISTOR 10kΩ, 1/10W
R386	QRSA08J-152YN	RESISTOR 1.5kΩ, 1/10W	R445	QRSA08J-103YN	RESISTOR, BR-S800 10kΩ, 1/10W
R387	QRSA08J-333YN	RESISTOR 33kΩ, 1/10W	R446	QRSA08J-101YN	RESISTOR, BR-S800 100Ω, 1/10W
R388	QRSA08J-272YN	RESISTOR 2.7kΩ, 1/10W	R447	QRSA08J-272YN	RESISTOR 2.7kΩ, 1/10W
R389	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W	R448	QRSA08J-103YN	RESISTOR 10kΩ, 1/10W
R390	QRSA08J-103YN	RESISTOR 10kΩ, 1/10W	R449	QRSA08J-103YN	RESISTOR 10kΩ, 1/10W
			R450	QRSA08J-0R0Y	RESISTOR 0Ω, 1/10W
R391	QRSA08J-331YN	RESISTOR 330Ω, 1/10W			
R392	QRSA08J-225YN	RESISTOR 2.2MΩ, 1/10W	R453	QRSA08J-103YN	RESISTOR, BR-S800 10kΩ, 1/10W
R393	QRSA08J-223YN	RESISTOR 22kΩ, 1/10W	R454	QRSA08J-0R0Y	RESISTOR, BR-S500 0Ω, 1/10W
R394	QRSA08J-392YN	RESISTOR 3.9kΩ, 1/10W	R455	QRSA08J-0R0Y	RESISTOR, BR-S800 0Ω, 1/10W
R395	QRSA08J-560YN	RESISTOR 56Ω, 1/10W	R456	QRSA08J-0R0Y	RESISTOR 0Ω, 1/10W
R396	QRSA08J-182YN	RESISTOR 1.8kΩ, 1/10W	R457	QRSA08J-103YN	RESISTOR 10kΩ, 1/10W
R397	QRSA08J-471YN	RESISTOR 470Ω, 1/10W	R458	QRSA08J-475YN	RESISTOR 4.7MΩ, 1/10W
R398	QRSA08J-681YN	RESISTOR 680Ω, 1/10W	R459	QRSA08J-334YN	RESISTOR 330kΩ, 1/10W
R399	QRSA08J-271YN	RESISTOR 270Ω, 1/10W	R460	QRSA08J-181YN	RESISTOR 180Ω, 1/10W
R400	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W			
			R461	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W
R401	QRSA08J-561YN	RESISTOR 560Ω, 1/10W			
R402	QRSA08J-331YN	RESISTOR 330Ω, 1/10W	C1	QCYA1EK-103	CAPACITOR 0.01μF, 25V
R404	QRSA08J-183YN	RESISTOR 18kΩ, 1/10W	C2	NEH11CM-476NP	E CAPACITOR 47μF, 16V
R405	QRSA08J-181YN	RESISTOR 180Ω, 1/10W	C3	QCYA1EK-103	CAPACITOR 0.01μF, 25V
R406	QRSA08J-122YN	RESISTOR 1.2kΩ, 1/10W	C4	NEN11EM-475NZ	E CAPACITOR 4.7μF, 25V
R407	QRSA08J-391YN	RESISTOR 390Ω, 1/10W	C5	NEH11CM-106N	E CAPACITOR 10μF, 16V
R408	QRSA08J-152YN	RESISTOR 1.5kΩ, 1/10W	C6	QCYA1EK-103	CAPACITOR 0.01μF, 25V
R409	QRSA08J-391YN	RESISTOR 390Ω, 1/10W	C7	NEH11CM-476NP	E CAPACITOR 47μF, 16V
R410	QRSA08J-473YN	RESISTOR 47kΩ, 1/10W	C8	QCYA1EK-103	CAPACITOR 0.01μF, 25V
			C9	NEH51AM-107P	E CAPACITOR 100μF, 10V
R411	QRSA08J-183YN	RESISTOR 18kΩ, 1/10W	C10	NEH11CM-476NP	E CAPACITOR 47μF, 16V
R412	QRSA08J-222YN	RESISTOR 2.2kΩ, 1/10W			
R413	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W	C12	QCTA1CH-221	CAPACITOR 220pF, 16V
R414	QRSA08J-101YN	RESISTOR 100Ω, 1/10W	C14	NEH10JM-107NP	E CAPACITOR 100μF, 6.3V
R415	QRSA08J-122YN	RESISTOR 1.2kΩ, 1/10W	C15	NEH51AM-107P	E CAPACITOR 100μF, 10V
R416	QRSA08J-153YN	RESISTOR 15kΩ, 1/10W	C17	QCTA1CH-121	CAPACITOR 120pF, 16V
R417	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W	C18	QCYA1EK-103	CAPACITOR 0.01μF, 25V
R418	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W	C19	NEH51AM-107P	E CAPACITOR 100μF, 10V
R419	QRSA08J-393YN	RESISTOR 39kΩ, 1/10W	C20	NEH11CM-476NP	E CAPACITOR 47μF, 16V
R420	QRSA08J-393YN	RESISTOR 39kΩ, 1/10W			
			C21	NEH11HM-225NZ	E CAPACITOR 2.2μF, 50V
R421	QRSA08J-471YN	RESISTOR 470Ω, 1/10W	C22	NEH11HM-225NZ	E CAPACITOR 2.2μF, 50V
R422	QRSA08J-331YN	RESISTOR 330Ω, 1/10W	C23	NEN11EM-475NZ	NP E CAPACITOR 4.7μF, 25V
R423	QRSA08J-392YN	RESISTOR 3.9kΩ, 1/10W	C24	QCTA1CH-100	CAPACITOR 10pF, 16V
R424	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W	C25	QCTA1CH-301	CAPACITOR 300pF, 16V
R425	QRSA08J-562YN	RESISTOR 5.6kΩ, 1/10W	C26	QCTA1CH-301	CAPACITOR 300pF, 16V
R426	QRSA08J-152YN	RESISTOR 1.5kΩ, 1/10W	C27	QCTA1CH-221	CAPACITOR 220pF, 16V
R427	QRSA08J-393YN	RESISTOR 39kΩ, 1/10W	C28	QCTA1CH-820	CAPACITOR 82pF, 16V
R428	QRSA08J-393YN	RESISTOR 39kΩ, 1/10W	C29	QCTA1CH-271	CAPACITOR 270pF, 16V
R429	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W	C30	QCTA1CH-101	CAPACITOR 100pF, 16V
R431	QRSA08J-272YN	RESISTOR 2.7kΩ, 1/10W	C31	QCTA1CH-181	CAPACITOR 180pF, 16V
R432	QRSA08J-471YN	RESISTOR 470Ω, 1/10W			

#△ REF No.	PART No.	PART NAME, DESCRIPTION		#△ REF No.	PART No.	PART NAME, DESCRIPTION	
C32	QCTA1CH-331	CAPACITOR	330pF,16V	C91	QCTA1CH-220	CAPACITOR	22pF,16V
C33	QCTA1CH-301	CAPACITOR	300pF,16V	C92	QCYA1EK-103	CAPACITOR	0.01 μ F,25V
C34	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	C93	QCYA1EK-103	CAPACITOR	0.01 μ F,25V
C35	NEH11CM-476NP	E CAPACITOR	47 μ F,16V	C94	QCYA1EK-103	CAPACITOR, BR-S800	0.01 μ F,25V
C36	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	C95	QCYA1EK-103	CAPACITOR, BR-S800	0.01 μ F,25V
C37	NEH11HM-105NZ	E CAPACITOR	1 μ F,50V	C96	QCYA1EK-103	CAPACITOR	0.01 μ F,25V
C38	QCYA1EK-104	CAPACITOR	0.1 μ F,25V	C97	NEH11CM-226NP	E CAPACITOR	22 μ F,16V
C39	NEH11HM-105NZ	E CAPACITOR	1 μ F,50V	C98	NEH11HM-474NZ	E CAPACITOR	0.47 μ F,50V
C40	QCYA1EK-104	CAPACITOR	0.1 μ F,25V	C99	QCYA1EK-103	CAPACITOR	0.01 μ F,25V
C41	QCYA1EK-104	CAPACITOR	0.1 μ F,25V	C100	NEH11HM-474NZ	E CAPACITOR	0.47 μ F,50V
C42	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	C101	QCTA1CH-151	CAPACITOR, BR-S800	150pF,16V
C43	NEH11CM-476NP	E CAPACITOR	47 μ F,16V	C102	QCTA1CH-220	CAPACITOR, BR-S800	22pF,16V
C44	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	C103	QCYA1EK-103	CAPACITOR, BR-S800	0.01 μ F,25V
C45	NEH11CM-106N	E CAPACITOR	10 μ F,16V	C104	NEH11CM-476NP	E CAPACITOR, BR-S800	47 μ F,16V
C46	NEH11CM-476NP	E CAPACITOR	47 μ F,16V	C105	QCYA1EK-103	CAPACITOR, BR-S800	0.01 μ F,25V
C47	NEH11CM-106N	E CAPACITOR	10 μ F,16V	C106	QCYA1EK-223	CAPACITOR, BR-S800	0.022 μ F,25V
C48	QCTA1CH-151	CAPACITOR	150pF,16V	C107	QCTA1CH-151	CAPACITOR, BR-S800	150pF,16V
C49	QCYA1EK-103	CAPACITOR, BR-S800	0.01 μ F,25V	C108	QCTA1CH-560	CAPACITOR, BR-S800	56pF,16V
C50	NEH11CM-476NP	E CAPACITOR, BR-S800	47 μ F,16V	C109	QCYA1HK-183	CAPACITOR, BR-S800	0.018 μ F,50V
C51	QCYA1EK-103	CAPACITOR, BR-S800	0.01 μ F,25V	C110	QCYA1EK-223	CAPACITOR, BR-S800	0.022 μ F,25V
C52	NEH51AM-107P	E CAPACITOR, BR-S800	100 μ F,10V	C112	QCYA1EK-103	CAPACITOR, BR-S800	0.01 μ F,25V
C53	QAT3661-500	TRIM. CAPACITOR, BR-S800	50pF	C113	QCYA1EK-103	CAPACITOR, BR-S800	0.01 μ F,25V
C54	QAT3661-500	TRIM. CAPACITOR, BR-S800	50pF	C114	QCTA1CH-560	CAPACITOR, BR-S800	56pF,16V
C56	QCTA1CH-120	CAPACITOR, BR-S800	12pF,16V	C115	QCTA1CH-330	CAPACITOR, BR-S800	33pF,16V
C57	NEH11CM-226NP	E CAPACITOR, BR-S800	22 μ F,16V	C116	QCTA1CH-151	CAPACITOR, BR-S800	150pF,16V
C58	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	C117	QCYA1EK-223	CAPACITOR, BR-S800	0.022 μ F,25V
C59	NEH11CM-476NP	E CAPACITOR	47 μ F,16V	C118	QCYA1EK-223	CAPACITOR, BR-S800	0.022 μ F,25V
C60	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	C120	QCYA1EK-223	CAPACITOR, BR-S800	0.022 μ F,25V
C61	NEH51AM-107P	E CAPACITOR	100 μ F,10V	C121	QCTA1CH-181	CAPACITOR	180pF,16V
C62	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	C122	QCYA1EK-103	CAPACITOR, BR-S800	0.01 μ F,25V
C63	QETA1AM-108	E CAPACITOR	1000 μ F,10V	C123	QCYA1EK-103	CAPACITOR, BR-S800	0.01 μ F,25V
C64	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	C124	QCYA1EK-103	CAPACITOR, BR-S800	0.01 μ F,25V
C65	NEN11EM-225NZ	E CAPACITOR, BR-S800	2.2 μ F,25V	C125	NEH11CM-476NP	E CAPACITOR, BR-S800	47 μ F,16V
C66	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	C126	QCYA1EK-103	CAPACITOR, BR-S800	0.01 μ F,25V
C67	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	C127	QCYA1EK-104	CAPACITOR, BR-S800	0.1 μ F,25V
C68	NEH11HM-474NZ	E CAPACITOR	0.47 μ F,50V	C129	QCTA1CH-6R0	CAPACITOR, BR-S800	6pF,16V
C69	NEH11HM-474NZ	E CAPACITOR	0.47 μ F,50V	C130	QCTA1CH-151	CAPACITOR, BR-S800	150pF,16V
C70	NEH11EM-475NZ	E CAPACITOR	4.7 μ F,25V	C131	QCYA1EK-104	CAPACITOR, BR-S800	0.1 μ F,25V
C71	NEH11CM-476NP	E CAPACITOR	47 μ F,16V	C132	QCYA1EK-104	CAPACITOR, BR-S800	0.1 μ F,25V
C72	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	C133	QCYA1EK-103	CAPACITOR	0.01 μ F,25V
C73	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	C134	NEH11CM-476NP	E CAPACITOR	47 μ F,16V
C74	NEH11EM-336NP	E CAPACITOR	33 μ F,25V	C135	QCYA1EK-103	CAPACITOR	0.01 μ F,25V
C75	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	C136	QCTA1CH-271	CAPACITOR	270pF,16V
C76	NEH11EM-336NP	E CAPACITOR	33 μ F,25V	C138	QCYA1EK-103	CAPACITOR	0.01 μ F,25V
C77	QCTA1CH-330	CAPACITOR	33pF,16V	C140	QCTA1CH-101	CAPACITOR	100pF,16V
C78	QCYA1EK-473	CAPACITOR	0.047 μ F,25V	C142	QCTA1CH-470	CAPACITOR	47pF,16V
C79	QCTA1CH-6R0	CAPACITOR	6pF,16V	C143	QCYA1EK-103	CAPACITOR	0.01 μ F,25V
C80	QCTA1CH-100	CAPACITOR	10pF,16V	C144	QCYA1EK-103	CAPACITOR	0.01 μ F,25V
C81	QCTA1CH-270	CAPACITOR	27pF,16V	C147	QCTA1CH-820	CAPACITOR	82pF,16V
C82	QCTA1CH-270	CAPACITOR	27pF,16V	C148	QCYA1EK-103	CAPACITOR	0.01 μ F,25V
C83	QCTA1CH-180	CAPACITOR	18pF,16V	C149	QCYA1EK-103	CAPACITOR	0.01 μ F,25V
C84	QCTA1CH-560	CAPACITOR	56pF,16V	C150	QCYA1EK-103	CAPACITOR	0.01 μ F,25V
C85	QCTA1CH-220	CAPACITOR	22pF,16V	C151	NEH11CM-476NP	E CAPACITOR	47 μ F,16V
C86	QCTA1CH-270	CAPACITOR	27pF,16V	C152	QCYA1EK-103	CAPACITOR	0.01 μ F,25V
C87	QCTA1CH-471	CAPACITOR	470pF,16V	C153	QCYA1HK-153	CAPACITOR	0.015 μ F,50V
C88	QCTA1CH-181	CAPACITOR	180pF,16V	C154	QCYA1EK-223	CAPACITOR	0.022 μ F,25V
C89	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	C155	QCTA1CH-271	CAPACITOR	270pF,16V
C90	QCYA1EK-223	CAPACITOR	0.022 μ F,25V				

#△ REF No.	PART No.	PART NAME, DESCRIPTION		#△ REF No.	PART No.	PART NAME, DESCRIPTION	
C156	QCYA1HK-102	CAPACITOR	0.001 μ F,50V	C223	NEH11CM-476NP	E CAPACITOR	47 μ F,16V
C157	QCTA1CH-220	CAPACITOR	22pF,16V	C224	QCYA1EK-103	CAPACITOR	0.01 μ F,25V
C159	QCYA1HK-102	CAPACITOR	0.001 μ F,50V	C225	NEH51AM-107P	E CAPACITOR	100 μ F,10V
C160	QCTA1CH-390	CAPACITOR	39pF,16V	C226	QCTA1CH-391	CAPACITOR	390pF,16V
C161	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	C227	QCYA1EK-223	CAPACITOR	0.022 μ F,25V
C162	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	C228	NEH11CM-106N	E CAPACITOR	10 μ F,16V
C164	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	C229	NEH11CM-106N	E CAPACITOR	10 μ F,16V
C165	QCTA1CH-330	CAPACITOR	33pF,16V	C230	QCTA1CH-220	CAPACITOR	22pF,16V
C166	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	C231	QCTA1CH-330	CAPACITOR, BR-S800	33pF,16V
C167	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	C232	QCTA1CH-470	CAPACITOR, BR-S800	47pF,16V
C168	QCTA1CH-330	CAPACITOR	33pF,16V	C233	QCYA1EK-223	CAPACITOR	0.022 μ F,25V
C169	QCYA1EK-223	CAPACITOR	0.022 μ F,25V	C234	QCTA1CH-680	CAPACITOR	68pF,16V
C170	QCTA1CH-470	CAPACITOR	47pF,16V	C236	QCTA1CH-270	CAPACITOR, BR-S800	27pF,16V
C172	QCTA1CH-220	CAPACITOR	22pF,16V	C237	QCTA1CH-220	CAPACITOR	22pF,16V
C173	QCTA1CH-390	CAPACITOR	39pF,16V	C239	NEH11CM-476NP	E CAPACITOR, BR-S800	47 μ F,16V
C174	QCTA1CH-120	CAPACITOR	12pF,16V	C240	QCTA1CH-151	CAPACITOR	150pF,16V
C175	QCTA1CH-120	CAPACITOR	12pF,16V	C241	QCYA1HK-102	CAPACITOR	0.001 μ F,50V
C176	QCYA1EK-223	CAPACITOR	0.022 μ F,25V	L1	YU41134-221JY	COIL	220 μ H
C180	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	L2	YU41134-221JY	COIL	220 μ H
C181	NEH11CM-476NP	E CAPACITOR	47 μ F,16V	L3	PU58201-150J	COIL	15 μ H
C182	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	L4	PU58201-180J	COIL	18 μ H
C183	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	L5	YU41134-221JY	COIL	220 μ H
C184	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	L6	YU41134-221JY	COIL	220 μ H
C185	QCYA1EK-104	CAPACITOR	0.1 μ F,25V	L7	YU41134-221JY	COIL, BR-S800	220 μ H
C186	QCYA1EK-104	CAPACITOR	0.1 μ F,25V	L8	YU41134-221JY	COIL	220 μ H
C187	QETA1AM-477	E CAPACITOR	470 μ F,10V	L9	YU41134-470JY	COIL	47 μ H
C188	QCYA1HK-682	CAPACITOR	0.0068 μ F,50V	L10	PU58201-390J	COIL	39 μ H
C189	QCTA1CH-330	CAPACITOR	33pF,16V	L11	YU41134-1R0MY	COIL	1 μ H
C190	QCYA1EK-473	CAPACITOR	0.047 μ F,25V	L12	PU58201-680J	COIL	68 μ H
C191	QCYA1EK-104	CAPACITOR	0.1 μ F,25V	L13	PU58201-391J	COIL	390 μ H
C193	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	L14	PU58201-121J	COIL	120 μ H
C195	QCYA1HK-122	CAPACITOR	0.0012 μ F,50V	L15	PU58201-820J	COIL	82 μ H
C196	QCTA1CH-331	CAPACITOR	330pF,16V	L16	PU58201-100J	COIL	10 μ H
C197	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	L17	PU58201-220J	COIL	22 μ H
C198	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	L18	YU41134-221JY	COIL, BR-S800	220 μ H
C199	NEH11CM-476NP	E CAPACITOR	47 μ F,16V	L19	PU58201-331J	COIL, BR-S800	330 μ H
C200	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	L20	PU58201-560J	COIL, BR-S800	56 μ H
C201	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	L21	PU58201-330J	COIL, BR-S800	33 μ H
C202	QETA1CM-107	E CAPACITOR	100 μ F,16V	L22	YU41134-221JY	COIL, BR-S800	220 μ H
C203	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	L23	PU58201-4R7J	COIL, BR-S800	4.7 μ H
C204	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	L24	YU41134-221JY	COIL	220 μ H
C206	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	L25	PU58201-221J	COIL	220 μ H
C207	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	L27	PU58201-560J	COIL	56 μ H
C208	NEH11CM-106N	E CAPACITOR	10 μ F,16V	L28	PU58201-120J	COIL	12 μ H
C209	NEH51AM-107P	E CAPACITOR	100 μ F,10V	L31	YU41134-221JY	COIL	220 μ H
C212	NEH51AM-107P	E CAPACITOR	100 μ F,10V	L32	PU58201-221J	COIL	220 μ H
C213	QCYA1EK-104	CAPACITOR	0.1 μ F,25V	L33	PU58201-330J	COIL	33 μ H
C214	NEH11HM-474NZ	E CAPACITOR	0.47 μ F,50V	L35	PU58201-680J	COIL	68 μ H
C215	NEH11HM-474NZ	E CAPACITOR	0.47 μ F,50V	L36	PU58201-470J	COIL	47 μ H
C216	NEH11CM-106N	E CAPACITOR	10 μ F,16V	L37	PU58201-100J	COIL	10 μ H
C217	QCTA1CH-150	CAPACITOR	15pF,16V	L38	PU58201-390J	COIL	39 μ H
C218	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	L39	PU58201-221J	COIL	220 μ H
C219	QCTA1CH-390	CAPACITOR	39pF,16V	L40	PU58201-100J	COIL	10 μ H
C220	NEH51AM-107P	E CAPACITOR	100 μ F,10V	L41	YU41134-221JY	COIL	220 μ H
C221	QCTA1CH-820	CAPACITOR	82pF,16V	L42	CE40344-821YL	COIL	
C222	QCYA1EK-103	CAPACITOR	0.01 μ F,25V				

#△ REF No.	PART No.	PART NAME, DESCRIPTION	#△ REF No.	PART No.	PART NAME, DESCRIPTION
L43	PU58201-331J	COIL 330 μ H	Q2	DTC323TK	TRANSISTOR, BR-S800
L44	PU54710-822	COIL 8.2mH	Q3	DTB123TS	TRANSISTOR, BR-S800
L46	YU41134-221JY	COIL 220 μ H	Q4	DTC124EK	DIODE, BR-S800
L47	YU41134-470JY	COIL 47 μ H	Q101	2SD601A(Q)	TRANSISTOR
L48	YU41134-221JY	COIL 220 μ H	Q102	2SC3110	TRANSISTOR
L49	PU58201-101J	COIL, BR-S800 100 μ H	Q103	2SC3110	TRANSISTOR
L50	PU58201-270J	COIL 27 μ H	Q104	2SC3110	TRANSISTOR
L51	PU58201-820J	COIL 82 μ H	Q105	2SC3110	TRANSISTOR
LPF1	PGZ01983	LOW PASS FILTER	Q106	2SA933S(Q)	TRANSISTOR, BR-S800
LPF2	PU60737	LOW PASS FILTER	Q107	2SC1741S(QR)	TRANSISTOR, BR-S800
LPF3	PGZ01981-R	LOW PASS FILTER	Q108	2SA933S(Q)	TRANSISTOR, BR-S800
LPF4	PGZ01329-R	LOW PASS FILTER	Q109	2SD639R	TRANSISTOR, BR-S800
DL1	PELN0320	LOW PASS FILTER	Q110	2SD639R	TRANSISTOR, BR-S800
DL2	PGZ00131-003	DELAY LINE	Q111	2SD601A(Q)	TRANSISTOR
△ K1	PGZ00627Z	CHIP FERRITE BEADS	Q112	DTC124EK	TRANSISTOR, BR-S800
△ K2	PGZ00627Z	CHIP FERRITE BEADS	D1	1SS136	DIODE
△ TH1	ERT-D2FGL103S	THERMISTOR	D2	1SS136	DIODE
△ TH2	ERT-D2FGL103S	THERMISTOR	D101	RD10ES-T1B1	ZENER DIODE, BR-S800
SPC1	PGZ01128-02	SPACER, \times 2	R1	QRSA08J-392YN	RESISTOR 3.9k Ω , 1/10W
TP1	SCV1880-001	TEST PIN, \times 15	R2	QRSA08J-103YN	RESISTOR 10k Ω , 1/10W
TP2	SCV1880-001	TEST PIN, \times 4(GND)	R3	QRSA08J-153YN	RESISTOR 15k Ω , 1/10W
CN1	PGZ01937-44	MALE CONNECTOR	R4	QRSA08J-122YN	RESISTOR 1.2k Ω , 1/10W
CN2	PGZ01937-44	MALE CONNECTOR	R5	QRSA08J-152YN	RESISTOR 1.5k Ω , 1/10W
CN3	PU59555-114	CONNECTOR	R6	QRSA08J-152YN	RESISTOR 1.5k Ω , 1/10W
AV PRE/REC BOARD ASSEMBLY <12>					
PWBA	PRK20222C-02	AV P/R BOARD ASSY, BR-S800	R7	QRSA08J-122YN	RESISTOR 1.2k Ω , 1/10W
PWBA	PRK20222D	AV P/R BOARD ASSY, BR-S600	R8	QRSA08J-122YN	RESISTOR 1.2k Ω , 1/10W
IC1	BA7743FS	IC	R9	QRSA08J-102YN	RESISTOR 1k Ω , 1/10W
IC2	M5278D05	IC	R10	QRSA08J-8R2YN	RESISTOR, BR-S800 8.2 Ω , 1/10W
IC101	M5278D09	IC	R11	QRSA08J-224YN	RESISTOR, BR-S800 220k Ω , 1/10W
IC102	M5278L05	IC	R12	QRSA08J-103YN	RESISTOR 10k Ω , 1/10W
IC103	TC4013BF	IC	R14	QRSA08J-0R0Y	RESISTOR 0 Ω , 1/10W
IC104	TC4053BF	IC	R15	QRSA08J-272YN	RESISTOR, BR-S800 2.7k Ω , 1/10W
IC105	TC4S30F	IC	R19	QRSA08J-101YN	RESISTOR, BR-S800 100 Ω , 1/10W
IC106	TC7W02F	IC	R101	QRSA08J-221YN	RESISTOR 220 Ω , 1/10W
IC107	UPC2320GS	IC(DRY-BKG)	R102	QRSA08J-221YN	RESISTOR 220 Ω , 1/10W
Q1	DTC323TK	TRANSISTOR, BR-S800	R103	QRSA08J-221YN	RESISTOR 220 Ω , 1/10W
			R104	QRSA08J-221YN	RESISTOR 220 Ω , 1/10W
			R105	QRSA08J-221YN	RESISTOR 220 Ω , 1/10W
			R106	QRSA08J-221YN	RESISTOR, BR-S800 220 Ω , 1/10W
			R107	QRSA08J-102YN	RESISTOR 1k Ω , 1/10W
			R108	QRSA08J-331YN	RESISTOR 330 Ω , 1/10W
			R109	QRSA08J-101YN	RESISTOR 100 Ω , 1/10W
			R110	QRSA08J-471YN	RESISTOR 470 Ω , 1/10W
			R111	QRSA08J-470YN	RESISTOR 47 Ω , 1/10W
			R112	QRSA08J-103YN	RESISTOR 10k Ω , 1/10W
			R113	QRSA08J-103YN	RESISTOR 10k Ω , 1/10W
			R114	QRSA08J-470YN	RESISTOR 47 Ω , 1/10W
			R115	QRSA08J-103YN	RESISTOR 10k Ω , 1/10W
			R116	QRSA08J-680YN	RESISTOR 68 Ω , 1/10W
			R117	QRSA08J-820YN	RESISTOR 82 Ω , 1/10W
			R118	PGZ01994-601Z	RESISTOR
			R119	PGZ01994-601Z	RESISTOR
			R120	QRSA08J-103YN	RESISTOR 10k Ω , 1/10W

#	REF No.	PART No.	PART NAME, DESCRIPTION	#	REF No.	PART No.	PART NAME, DESCRIPTION
R121		PGZ01994-601Z	RESISTOR	C111		QCYA1EK-103	CAPACITOR 0.01 μ F,25V
R122		QRSA08J-103YN	RESISTOR 10k Ω ,1/10W	C112		QCYA1EK-103	CAPACITOR 0.01 μ F,25V
R123		QRSA08J-103YN	RESISTOR 10k Ω ,1/10W	C113		QCYA1EK-103	CAPACITOR 0.01 μ F,25V
R124		PGZ01994-601Z	RESISTOR	C114		QCYA1EK-103	CAPACITOR 0.01 μ F,25V
R125		QRSA08J-103YN	RESISTOR 10k Ω ,1/10W	C115		QER61CM-106	E CAPACITOR 10 μ F,16V
R126		QRSA08J-103YN	RESISTOR 10k Ω ,1/10W	C116		QCYA1EK-104	CAPACITOR 0.1 μ F,25V
R127		QRSA08J-183YN	RESISTOR 18k Ω ,1/10W	C117		QCYA1EK-104	CAPACITOR, BR-S800 0.1 μ F,25V
R128		QRSA08J-183YN	RESISTOR 18k Ω ,1/10W	C118		QCYA1EK-104	CAPACITOR, BR-S800 0.1 μ F,25V
R129		QRSA08J-183YN	RESISTOR 18k Ω ,1/10W	C119		QCYA1EK-104	CAPACITOR 0.1 μ F,25V
R130		QRSA08J-183YN	RESISTOR 18k Ω ,1/10W	C120		QEE81VM-474	TANTAL CAPACITOR 0.47 μ F,35V
R131		QRSA08J-472YN	RESISTOR, BR-S800 4.7k Ω ,1/10W	C121		QCYA1HK-222	CAPACITOR 0.0022 μ F,50V
R132		QRSA08J-473YN	RESISTOR, BR-S800 47k Ω ,1/10W	C122		QCYA1HK-222	CAPACITOR 0.0022 μ F,50V
R133		QRSA08J-222YN	RESISTOR, BR-S800 2.2k Ω ,1/10W	C123		QCTA1CH-9R0	CAPACITOR 9pF,16V
R134		QRSA08J-473YN	RESISTOR, BR-S800 47k Ω ,1/10W	C124		QCYA1EK-104	CAPACITOR 0.1 μ F,25V
R135		QRSA08J-183YN	RESISTOR, BR-S800 18k Ω ,1/10W	C125		QCYA1EK-104	CAPACITOR 0.1 μ F,25V
R136		QRSA08J-121YN	RESISTOR, BR-S800 120 Ω ,1/10W	C126		QCYA1EK-104	CAPACITOR 0.1 μ F,25V
R137		QRSA08J-104YN	RESISTOR, BR-S800 100k Ω ,1/10W	C127		QCYA1EK-104	CAPACITOR 0.1 μ F,25V
R138		QRSA08J-104YN	RESISTOR, BR-S800 100k Ω ,1/10W	C128		QCYA1EK-104	CAPACITOR 0.1 μ F,25V
R139		QRSA08J-121YN	RESISTOR, BR-S800 120 Ω ,1/10W	C130		QEE81VM-474	TANTAL CAPACITOR 0.47 μ F,35V
R140		QRSA08J-221YN	RESISTOR, BR-S800 220 Ω ,1/10W	C131		QCYA1EK-104	CAPACITOR 0.1 μ F,25V
R141		QRSA08J-391YN	RESISTOR 390 Ω ,1/10W	C132		QEE81VM-474	TANTAL CAPACITOR 0.47 μ F,35V
R142		QRSA08J-152YN	RESISTOR 1.5k Ω ,1/10W	C133		QEE81VM-474	TANTAL CAPACITOR 0.47 μ F,35V
R143		QRSA08J-121YN	RESISTOR, BR-S800 120 Ω ,1/10W	C134		QCYA1EK-104	CAPACITOR 0.1 μ F,25V
R144		QRSA08J-102YN	RESISTOR, BR-S800 1k Ω ,1/10W	C135		QCYA1EK-104	CAPACITOR 0.1 μ F,25V
R145		QRSA08J-102YN	RESISTOR 1k Ω ,1/10W	C136		QEE81VM-474	TANTAL CAPACITOR 0.47 μ F,35V
R146		QRSA08J-0R0Y	RESISTOR 0 Ω ,1/10W	C137		QCYA1EK-103	CAPACITOR, BR-S800 0.01 μ F,25V
C1		QCYA1HK-102	CAPACITOR, BR-S800 0.001 μ F,50V	C137		QCYA1HK-103	CAPACITOR 0.01 μ F,50V
C2		QCYA1HK-103	CAPACITOR 0.01 μ F,50V	C138		QCTA1CH-101	CAPACITOR 100pF,16V
C3		QCYA1HK-103	CAPACITOR 0.01 μ F,50V	C139		QCTA1CH-101	CAPACITOR 100pF,16V
C4		QEE81AM-107	TANTAL CAPACITOR 100 μ F,10V	C140		QCTA1CH-101	CAPACITOR 100pF,16V
C5		QCYA1HK-103	CAPACITOR 0.01 μ F,50V	C141		QCTA1CH-101	CAPACITOR 100pF,16V
C6		QCYA1HK-103	CAPACITOR 0.01 μ F,50V	C142		QCTA1CH-100	CAPACITOR 10pF,16V
C7		QCYA1HK-102	CAPACITOR 0.001 μ F,50V	C143		QCTA1CH-100	CAPACITOR 10pF,16V
C8		QCYA1HK-102	CAPACITOR 0.001 μ F,50V	C146		QER61CM-106	E CAPACITOR, BR-S800 10 μ F,16V
C9		QCTA1CH-561	CAPACITOR 560pF,16V	C147		QCFA1EZ-104	CAPACITOR, BR-S800 0.1 μ F,25V
C10		QCTA1CH-561	CAPACITOR 560pF,16V	C148		QCF31HP-103	CAPACITOR, BR-S800 0.01 μ F,50V
C11		QER61HM-105	E CAPACITOR 1 μ F,50V	C149		QCB81HJ-820	CAPACITOR, BR-S800 82pF,50V
C12		QER61HM-105	E CAPACITOR 1 μ F,50V	C150		QCB81HJ-820	CAPACITOR, BR-S800 82pF,50V
C13		QCTA1CH-101	CAPACITOR 100pF,16V	C151		QCSB1HJ-560	CAPACITOR, BR-S800 56pF,50V
C14		QFN31HJ-104	M CAPACITOR, BR-S800 0.1 μ F,50V	C152		QCC11EJ-123	CAPACITOR, BR-S800 0.12 μ F,25V
C15		QCYA1HK-103	CAPACITOR 0.01 μ F,50V	C153		QCS31HJ-820	CAPACITOR, BR-S800 82pF,50V
C16		QER61CM-476	E CAPACITOR 47 μ F,16V	C155		QCFA1EZ-104	CAPACITOR 0.1 μ F,25V
C17		QCYA1HK-103	CAPACITOR 0.01 μ F,50V	C156		QCFA1EZ-104	CAPACITOR, BR-S800 0.1 μ F,25V
C18		QCFA1CZ-224	CAPACITOR, BR-S800 0.22 μ F,16V	C157		QCYA1HK-103	CAPACITOR, BR-S800 0.01 μ F,50V
C18		QRSA08J-0R0Y	RESISTOR, BR-S500 0 Ω ,1/10W	C158		QCFA1EZ-104	CAPACITOR 0.1 μ F,25V
C19		QCYA1HK-102	CAPACITOR, BR-S800 0.001 μ F,50V	C159		QCFA1EZ-104	CAPACITOR 0.1 μ F,25V
C101		QCYA1EK-103	CAPACITOR 0.01 μ F,25V	C161		QCYA1HK-102	CAPACITOR 0.01 μ F,50V
C102		QCYA1EK-103	CAPACITOR 0.01 μ F,25V	C162		QETC1CM-476	E CAPACITOR 47 μ F,16V
C103		QEE81CM-106	TANTAL CAPACITOR 10 μ F,16V	C171		QCTA1CH-101	CAPACITOR, BR-S800 100pF,16V
C104		QCYA1EK-103	CAPACITOR 0.01 μ F,25V	L101		YU41134-1R0MY	COIL 1 μ H
C105		QEE81CM-106	TANTAL CAPACITOR 10 μ F,16V	L102		YU41134-101J	COIL 100 μ H
C106		QCYA1EK-103	CAPACITOR 0.01 μ F,25V	L103		YU41134-101J	COIL 100 μ H
C107		QCYA1EK-103	CAPACITOR 0.01 μ F,25V	L104		PU48530-100J	COIL 10 μ H
C108		QEE81CM-106	TANTAL CAPACITOR 10 μ F,16V	L105		YU41134-101J	COIL, BR-S800 100 μ H
C109		QEE81CM-106	TANTAL CAPACITOR 10 μ F,16V	L106		PU48530-560J	COIL, BR-S800 56 μ H
C110		QCYA1EK-103	CAPACITOR 0.01 μ F,25V	L107		PU48530-3R3J	COIL, BR-S800 3.3 μ H

#△	REF No.	PART No.	PART NAME, DESCRIPTION
△	K1	PU60281-2Z	FERRATE BEADS, × 2(K1,K2)
△	K101	PU60281-2Z	FERRATE BEADS
△	K102	PU60281-2Z	FERRATE BEADS
△	K104	PU60281-2Z	FERRATE BEADS
△	K105	PU60281-2Z	FERRATE BEADS
△	K106	PU60281-2Z	FERRATE BEADS, BR-S800
△	K107	PU60281-2Z	FERRATE BEADS
△	K108	PU60281-2Z	FERRATE BEADS, BR-S800
△	T101	PU56175	S.TRANS, BR-S800
	BKT1	PRD44235	BOARD BRACKET, × 2
	SCW1	DPSP2608Z	SCREW, × 2
	SCW2	WBS2600N	WASHER, × 2
	SLD1	PQ33493	SHIELDE CASE, BR-S800
	SLD2	PQ33494	SHIELDE COVER, BR-S800
	SLD3	PRS40034	SHIELD CASE
	TP1	SQMX001-001Z	TEST PIN, × 7:BR-S800 × 6:BR-S500
	CN1	PU59555-103	CONNECTOR
	CN2	PU59555-104	CONNECTOR
	CN2	PU59555-106	CONNECTOR, BR-S800
	CN3	PU56258-14	CONNECTOR
	CN5	PU59555-106	CONNECTOR
	CN6	PU59555-114	CONNECTOR

BURST ADD BOARD ASSEMBLY <15>

PWBA	PRK20276A-01	BURST ADD BOARD ASSY
IC502	NJM2234M	IC
IC503	TC74HC4538AF	IC
IC504	NJM567M	IC
IC505	TC7S04F	IC
Q501	2SC2412K(RS)	TRANSISTOR
Q502	2SA1037K(QR)	TRANSISTOR
Q507	2SC2412K(RS)	TRANSISTOR
Q508	2SC2412K(RS)	TRANSISTOR
Q509	2SC2412K(RS)	TRANSISTOR
Q510	2SC2412K(RS)	TRANSISTOR
Q511	DTC144EK	TRANSISTOR
Q512	DTC144EK	TRANSISTOR
Q513	DTC144EK	TRANSISTOR

#△	REF No.	PART No.	PART NAME, DESCRIPTION
	D501	DAN202K	DIODE
	R501	NVP1415-102N	V RESISTOR 1kΩ,1/4W
	R502	NVP1415-102N	V RESISTOR 1kΩ,1/4W
	R503	NVP1415-502N	V RESISTOR 5kΩ,1/4W
	R511	QRSA08J-223YN	RESISTOR 22kΩ,1/10W
	R512	QRSA08J-223YN	RESISTOR 22kΩ,1/10W
	R513	QRSA08J-471YN	RESISTOR 470Ω,1/10W
	R514	QRSA08J-471YN	RESISTOR 470Ω,1/10W
	R515	QRSA08J-681YN	RESISTOR 680Ω,1/10W
	R525	QRSA08J-223YN	RESISTOR 22kΩ,1/10W
	R526	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
	R527	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
	R528	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
	R529	QRSA08J-561YN	RESISTOR 560Ω,1/10W
	R530	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
	R531	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
	R532	QRSA08J-101YN	RESISTOR 100Ω,1/10W
	R533	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
	R534	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
	R535	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
	R536	QRSA08J-683YN	RESISTOR 68kΩ,1/10W
	R537	QRSA08J-332YN	RESISTOR 3.3kΩ,1/10W
	R538	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
	R539	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
	R540	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
	R541	QRSA08J-123YN	RESISTOR 12kΩ,1/10W
	R542	QRSA08J-0R0Y	RESISTOR 0Ω,1/10W
	C501	QCYA1EK-103	CAPACITOR 0.01μF,25V
	C502	QCTA1CH-470	CAPACITOR 47pF,16V
	C507	QCYA1EK-103	CAPACITOR 0.01μF,25V
	C508	QCTA1CH-121	CAPACITOR 120pF,16V
	C509	QCYA1EK-103	CAPACITOR 0.01μF,25V
	C510	QCYA1EK-103	CAPACITOR 0.01μF,25V
	C511	QCYA1EK-103	CAPACITOR 0.01μF,25V
	C512	QCTA1CH-471	CAPACITOR 470pF,16V
	C513	QCYA1HK-102	CAPACITOR 0.001μF,50V
	C514	QCYA1HK-153	CAPACITOR 0.015μF,50V
	C515	NEE21CM-225RY	TANTAL CAPACITOR 2.2μF,16V
	C516	NEE21EM-105RY	TANTAL CAPACITOR 1μF,25V
	C517	QCYA1EK-104	CAPACITOR 0.1μF,25V
	C518	NFV41CJ-103AY	CAPACITOR 0.01μF,16V
	C519	QCYA1EK-103	CAPACITOR 0.01μF,25V
	C520	NEE21AM-476RZ	TANTAL CAPACITOR 47μF,10V
	L502	PU58201-180J	COIL 18μH
	L503	YU41134-101J	COIL 100μH
	TP1	SCV1880-001	TEST PIN, × 4
	CN501	PGZ00724-11	CONNECTOR
	CN502	PGZ00724-10	CONNECTOR

#	△ REF No.	PART No.	PART NAME, DESCRIPTION
FM AUDIO BOARD ASSEMBLY <20>			
PWBA	PRK10171A-01	FM AUDIO BOARD ASSY, BR-S800	
PWBA	PRK10171B-01	FM AUDIO BOARD ASSY, BR-S500	
IC1	M5278D05	IC	
IC2	JCP0038	IC	
IC3	TC4052BF	IC	
IC4	TC4052BF	IC	
IC5	M51132L	IC	
IC6	M5218AFP-XE1	IC	
IC7	TL082CPS	IC	
IC8	AN6041	IC, BR-S800	
IC9	M37451E8-505FP	IC (DRY), BR-S800	
IC9	M37451E8-504FP	IC (DRY), BR-S500	
IC10	BR24C01AF	IC	
IC11	M62353GP	IC	
IC12	M62353GP	IC	
IC13	TC4051BF	IC	
IC14	M5218AFP-XE1	IC	
IC15	M5218AFP-XE1	IC	
IC19	M5218AFP-XE1	IC, BR-S800	
Q1	2SD973AR	TRANSISTOR	
Q2	2SK208	FE TRANSISTOR	
Q3	2SK208	FE TRANSISTOR	
Q4	2SC2412K	TRANSISTOR, BR-S800	
Q5	2SA1037K	TRANSISTOR, BR-S800	
Q6	2SC2412K	TRANSISTOR, BR-S800	
Q7	DTC124EK	TRANSISTOR	
Q8	DTC124EK	TRANSISTOR	
Q9	DTC124EK	TRANSISTOR	
Q10	DTC124EK	TRANSISTOR	
Q11	DTC323TK	TRANSISTOR	
Q12	DTC124EK	TRANSISTOR	
Q13	DTC124EK	TRANSISTOR	
Q14	2SC2412K(RS)	TRANSISTOR	
Q15	DTA124EK	TRANSISTOR	
Q17	DTC124EK	TRANSISTOR, BR-S800	
Q18	DTA124EK	TRANSISTOR, BR-S800	
Q19	DTA124EK	TRANSISTOR, BR-S800	
Q20	DTC124EK	TRANSISTOR	
Q21	DTC323TK	TRANSISTOR	
Q22	DTA124EK	TRANSISTOR	
D1	DA204K	DIODE	
D2	DA204K	DIODE	
D3	DA204K	DIODE	
D4	RD5.1ES-T1B1	ZENER DIODE	
DA1	DA204K	DIODE	
R1	QRSA08J-821YN	RESISTOR	820 Ω, 1/10W
R2	QRSA08J-821YN	RESISTOR	820 Ω, 1/10W

#	△ REF No.	PART No.	PART NAME, DESCRIPTION
R3	QRSA08J-562YN	RESISTOR	5.6kΩ, 1/10W
R4	QRSA08J-472YN	RESISTOR	4.7kΩ, 1/10W
R7	QRSA08J-0R0Y	RESISTOR	0 Ω, 1/10W
R8	QRSA08J-274YN	RESISTOR	270kΩ, 1/10W
R9	QRSA08J-823YN	RESISTOR	82kΩ, 1/10W
R10	QRSA08J-104YN	RESISTOR	100kΩ, 1/10W
R11	QRSA08J-103YN	RESISTOR	10kΩ, 1/10W
R12	QRSA08J-183YN	RESISTOR	18kΩ, 1/10W
R13	QRSA08J-332YN	RESISTOR	3.3kΩ, 1/10W
R14	QRSA08J-303YN	RESISTOR	30kΩ, 1/10W
R16	QRSA08J-0R0Y	RESISTOR	0 Ω, 1/10W
R17	QRSA08J-183YN	RESISTOR	18kΩ, 1/10W
R18	QRSA08J-104YN	RESISTOR	100kΩ, 1/10W
R19	QRSA08J-332YN	RESISTOR	3.3kΩ, 1/10W
R20	QRSA08J-332YN	RESISTOR	3.3kΩ, 1/10W
R21	QRSA08J-102YN	RESISTOR, BR-S800	1kΩ, 1/10W
R22	QRSA08J-333YN	RESISTOR, BR-S800	33kΩ, 1/10W
R23	QRSA08J-123YN	RESISTOR, BR-S800	12kΩ, 1/10W
R24	QRSA08J-102YN	RESISTOR, BR-S800	1kΩ, 1/10W
R25	QRSA08J-102YN	RESISTOR, BR-S800	1kΩ, 1/10W
R26	QRSA08J-391YN	RESISTOR, BR-S800	390 Ω, 1/10W
R27	QRSA08J-102YN	RESISTOR, BR-S800	1kΩ, 1/10W
R28	QRSA08J-223YN	RESISTOR, BR-S800	22kΩ, 1/10W
R29	QRSA08J-332YN	RESISTOR, BR-S800	3.3kΩ, 1/10W
R30	QRSA08J-223YN	RESISTOR, BR-S800	22kΩ, 1/10W
R31	QRSA08J-223YN	RESISTOR, BR-S800	22kΩ, 1/10W
R32	QRSA08J-102YN	RESISTOR, BR-S800	1kΩ, 1/10W
R37	QRSA08J-472YN	RESISTOR	4.7kΩ, 1/10W
R38	QRSA08J-472YN	RESISTOR	4.7kΩ, 1/10W
R39	QRSA08J-511YN	RESISTOR	510 Ω, 1/10W
R40	QRSA08J-511YN	RESISTOR	510 Ω, 1/10W
R41	QRSA08J-472YN	RESISTOR	4.7kΩ, 1/10W
R42	QRSA08J-472YN	RESISTOR	4.7kΩ, 1/10W
R43	QRSA08J-513YN	RESISTOR	51kΩ, 1/10W
R44	QRSA08J-513YN	RESISTOR	51kΩ, 1/10W
R45	QRSA08J-101YN	RESISTOR	100 Ω, 1/10W
R46	QRSA08J-101YN	RESISTOR	100 Ω, 1/10W
R47	QRSA08J-223YN	RESISTOR	22kΩ, 1/10W
R48	QRSA08J-223YN	RESISTOR	22kΩ, 1/10W
R49	QRSA08J-101YN	RESISTOR	100 Ω, 1/10W
R50	QRSA08J-101YN	RESISTOR	100 Ω, 1/10W
R51	QRSA08J-822YN	RESISTOR	8.2kΩ, 1/10W
R52	QRSA08J-822YN	RESISTOR	8.2kΩ, 1/10W
R53	QRSA08J-103YN	RESISTOR	10kΩ, 1/10W
R54	QRSA08J-103YN	RESISTOR	10kΩ, 1/10W
R55	QRSA08J-123YN	RESISTOR	12kΩ, 1/10W
R56	QRSA08J-103YN	RESISTOR	10kΩ, 1/10W
R57	QVPC625-103Z	V RESISTOR	10kΩ
R58	QVPC625-682Z	V RESISTOR	6.8kΩ
R59	QRSA08J-683YN	RESISTOR	68kΩ, 1/10W
R60	QRSA08J-683YN	RESISTOR	68kΩ, 1/10W
R61	QRSA08J-684YN	RESISTOR	680kΩ, 1/10W
R62	QRSA08J-684YN	RESISTOR	680kΩ, 1/10W
R63	QRSA08J-684YN	RESISTOR	680kΩ, 1/10W
R64	QRSA08J-684YN	RESISTOR	680kΩ, 1/10W
R65	QRSA08J-123YN	RESISTOR, BR-S800	12kΩ, 1/10W
R66	QRSA08J-332YN	RESISTOR, BR-S800	3.3kΩ, 1/10W

#△REF No.	PART No.	PART NAME, DESCRIPTION		#△REF No.	PART No.	PART NAME, DESCRIPTION	
R67	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W	R140	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R68	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W	R141	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R71	QRSA08J-473YN	RESISTOR	47kΩ,1/10W	R142	QRSA08J-223YN	RESISTOR	22kΩ,1/10W
R72	QRSA08J-473YN	RESISTOR	47kΩ,1/10W	R143	QRSA08J-104YN	RESISTOR	100kΩ,1/10W
R73	QRSA08J-473YN	RESISTOR	47kΩ,1/10W	R144	QRSA08J-224YN	RESISTOR	220kΩ,1/10W
R74	QRSA08J-473YN	RESISTOR	47kΩ,1/10W	R145	QRSA08J-224YN	RESISTOR	220kΩ,1/10W
R75	QRSA08J-153YN	RESISTOR	15kΩ,1/10W	R146	QRSA08J-223YN	RESISTOR	22kΩ,1/10W
R76	QRSA08J-153YN	RESISTOR	15kΩ,1/10W	R147	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R77	QRSA08J-103YN	RESISTOR	10kΩ,1/10W	R148	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R78	QRSA08J-103YN	RESISTOR	10kΩ,1/10W	R201	QRSA08J-223YN	RESISTOR, BR-S800	22kΩ,1/10W
R79	QRSA08J-103YN	RESISTOR	10kΩ,1/10W	R202	QRSA08J-683YN	RESISTOR, BR-S800	68kΩ,1/10W
R80	QRSA08J-103YN	RESISTOR	10kΩ,1/10W	R203	QRSA08J-273YN	RESISTOR, BR-S800	27kΩ,1/10W
R81	QRSA08J-562YN	RESISTOR	5.6kΩ,1/10W	R204	QRSA08J-223YN	RESISTOR, BR-S800	22kΩ,1/10W
R82	QRSA08J-562YN	RESISTOR	5.6kΩ,1/10W	R205	QRSA08J-823YN	RESISTOR	82kΩ,1/10W
R83	QRSA08J-103YN	RESISTOR	10kΩ,1/10W	R206	QRSA08J-823YN	RESISTOR	82kΩ,1/10W
R84	QRSA08J-103YN	RESISTOR	10kΩ,1/10W	R207	QRSA08J-152YN	RESISTOR	1.5kΩ,1/10W
R85	QRSA08J-393YN	RESISTOR	39kΩ,1/10W	R208	QRSA08J-152YN	RESISTOR	1.5kΩ,1/10W
R86	QRSA08J-393YN	RESISTOR	39kΩ,1/10W	R209	QRSA08J-152YN	RESISTOR	1.5kΩ,1/10W
R87	QRSA08J-821YN	RESISTOR	820Ω,1/10W	R211	QRSA08J-101YN	RESISTOR	100Ω,1/10W
R88	QRSA08J-821YN	RESISTOR	820Ω,1/10W	R212	QRSA08J-101YN	RESISTOR	100Ω,1/10W
R89	QRSA08J-103YN	RESISTOR	10kΩ,1/10W	R213	QRSA08J-332YN	RESISTOR, BR-S800	3.3kΩ,1/10W
R101	QRSA08J-105YN	RESISTOR	1MΩ,1/10W	R214	QRSA08J-332YN	RESISTOR, BR-S800	3.3kΩ,1/10W
R102	QRSA08J-681YN	RESISTOR	680Ω,1/10W	R215	NRVA62D-123N	RESISTOR	12kΩ,1/16W
R103	QRSA08J-103YN	RESISTOR	10kΩ,1/10W	R216	NRVA62D-123N	RESISTOR	12kΩ,1/16W
R105	QRSA08J-102YN	RESISTOR	1kΩ,1/10W	R217	QRSA08J-105YN	RESISTOR	1MΩ,1/10W
R106	QRSA08J-104YN	RESISTOR	100kΩ,1/10W	C1	QETC1CM-107ZE	E CAPACITOR	100μF,16V
R107	QRSA08J-102YN	RESISTOR	1kΩ,1/10W	C2	QCYA1HK-103	CAPACITOR	0.01μF,50V
R108	QRSA08J-104YN	RESISTOR	100kΩ,1/10W	C3	QETC1CM-107ZE	E CAPACITOR	100μF,16V
R109	QRSA08J-104YN	RESISTOR	100kΩ,1/10W	C4	QETC1CM-476ZE	E CAPACITOR	47μF,16V
R111	QRSA08J-102YN	RESISTOR	1kΩ,1/10W	C5	QCYA1HK-103	CAPACITOR	0.01μF,50V
R112	QRSA08J-102YN	RESISTOR	1kΩ,1/10W	C6	QETC1CM-476ZE	E CAPACITOR	47μF,16V
R113	QRSA08J-101YN	RESISTOR	100Ω,1/10W	C7	QCYA1HK-103	CAPACITOR	0.01μF,50V
R114	QRSA08J-104YN	RESISTOR	100kΩ,1/10W	C8	QETC1CM-476ZE	E CAPACITOR	47μF,16V
R115	QRSA08J-101YN	RESISTOR	100Ω,1/10W	C9	QETC1CM-476ZE	E CAPACITOR	47μF,16V
R116	QRSA08J-104YN	RESISTOR	100kΩ,1/10W	C11	QETC1CM-476ZE	E CAPACITOR	47μF,16V
R117	QRSA08J-103YN	RESISTOR, BR-S800	10kΩ,1/10W	C12	QETC0JM-107ZE	E CAPACITOR	100μF,6.3V
R118	QRSA08J-103YN	RESISTOR, BR-S800	10kΩ,1/10W	C13	QETC0JM-107ZE	E CAPACITOR	100μF,6.3V
R119	QRSA08J-473YN	RESISTOR, BR-S800	47kΩ,1/10W	C14	QETC1CM-107ZE	E CAPACITOR	100μF,16V
R120	QRSA08J-223YN	RESISTOR, BR-S800	22kΩ,1/10W	C15	QCYA1HK-103	CAPACITOR	0.01μF,50V
R121	QRSA08J-823YN	RESISTOR	82kΩ,1/10W	C16	QCYA1HK-473	CAPACITOR	0.047μF,50V
R122	QRSA08J-823YN	RESISTOR	82kΩ,1/10W	C17	QCYA1HK-103	CAPACITOR	0.01μF,50V
R123	QRSA08J-823YN	RESISTOR	82kΩ,1/10W	C18	QETC1HM-104	E CAPACITOR	0.1μF,50V
R124	QRSA08J-823YN	RESISTOR	82kΩ,1/10W	C19	QCTA1CH-471	CAPACITOR	470pF,16V
R125	QRSA08J-823YN	RESISTOR	82kΩ,1/10W	C20	QCTA1CH-561	CAPACITOR	560pF,16V
R126	NRVA62D-563N	RESISTOR	56kΩ,1/16W	C21	QCYA1EK-104	CAPACITOR	0.1μF,25V
R127	NRVA62D-123N	RESISTOR	12kΩ,1/16W	C22	QETC1CM-476ZE	E CAPACITOR	47μF,16V
R128	NRVA62D-272N	RESISTOR	2.7kΩ,1/16W	C25	QETC1CM-476ZE	E CAPACITOR, BR-S800	47μF,16V
R129	NRVA62D-151N	CMF RESISTOR	150Ω,1/16W	C26	QCTA1CH-101	CAPACITOR, BR-S800	100pF,16V
R131	NRVA62D-393N	RESISTOR	39kΩ,1/16W	C27	QCYA1HK-223	CAPACITOR, BR-S800	0.022μF,50V
R132	NRVA62D-393N	RESISTOR	39kΩ,1/16W	C28	QCTA1CH-121	CAPACITOR, BR-S800	120pF,16V
R133	NRVA62D-393N	RESISTOR	39kΩ,1/16W	C29	QETC1CM-476	E CAPACITOR, BR-S800	47μF,16V
R134	NRVA62D-393N	RESISTOR	39kΩ,1/16W	C30	QCYA1HK-103	CAPACITOR, BR-S800	0.01μF,50V
R135	NRVA62D-393N	RESISTOR	39kΩ,1/16W	C31	QCYA1HK-103	CAPACITOR, BR-S800	0.01μF,50V
R136	NRVA62D-393N	RESISTOR	39kΩ,1/16W	C32	QCYA1HK-103	CAPACITOR, BR-S800	0.01μF,50V
R137	NRVA62D-393N	RESISTOR	39kΩ,1/16W	C33	QCYA1HK-103	CAPACITOR, BR-S800	0.01μF,50V
R138	QRSA08J-103YN	RESISTOR	10kΩ,1/10W				
R139	QRSA08J-104YN	RESISTOR	100kΩ,1/10W				

#	REF No.	PART No.	PART NAME, DESCRIPTION	#	REF No.	PART No.	PART NAME, DESCRIPTION
C35		QCYA1HK-103	CAPACITOR 0.01 μ F,50V	C92		QCYA1HK-222	CAPACITOR, BR-S800 0.0022 μ F,50V
C36		QCYA1HK-103	CAPACITOR 0.01 μ F,50V	C93		QCYA1HK-103	CAPACITOR, BR-S800 0.01 μ F,50V
C37		QETC1CM-336ZE	E CAPACITOR 33 μ F,16V	C94		QCYA1HK-103	CAPACITOR, BR-S800 0.01 μ F,50V
C38		QETC1CM-336ZE	E CAPACITOR 33 μ F,16V	C95		QENC1CM-106	NP E CAPACITOR 10 μ F,16V
C39		QFN31HJ-473	M CAPACITOR 0.047 μ F,50V	C96		QENC1CM-106	NP E CAPACITOR 10 μ F,16V
C40		QFN31HJ-473	M CAPACITOR 0.047 μ F,50V	C97		QETC1CM-106	E CAPACITOR 10 μ F,16V
C41		QETC1HM-225ZE	E CAPACITOR 2.2 μ F,50V	C98		QETC1CM-106	E CAPACITOR 10 μ F,16V
C42		QETC1HM-225ZE	E CAPACITOR 2.2 μ F,50V	C101		QCYA1EK-104	CAPACITOR 0.1 μ F,25V
C43		QFN31HJ-333	M CAPACITOR 0.033 μ F,50V	C102		QCTA1CH-470	CAPACITOR 47pF,16V
C44		QFN31HJ-333	M CAPACITOR 0.033 μ F,50V	C103		QCTA1CH-270	CAPACITOR 27pF,16V
C45		QETC1CM-106ZE	E CAPACITOR 10 μ F,16V	C104		QCYA1EK-104	CAPACITOR 0.1 μ F,25V
C46		QETC1CM-106ZE	E CAPACITOR 10 μ F,16V	C105		QCYA1EK-104	CAPACITOR 0.1 μ F,25V
C47		QETC1CM-227ZE	E CAPACITOR 220 μ F,16V	C106		QCYA1EK-104	CAPACITOR 0.1 μ F,25V
C48		QETC1CM-227ZE	E CAPACITOR 220 μ F,16V	C107		QETC1CM-476ZE	E CAPACITOR 47 μ F,16V
C49		QETC1HM-225ZE	E CAPACITOR 2.2 μ F,50V	C108		QCYA1EK-104	CAPACITOR 0.1 μ F,25V
C50		QETC1HM-225ZE	E CAPACITOR 2.2 μ F,50V	C109		QETC1CM-226ZE	E CAPACITOR, BR-S800 22 μ F,16V
C51		QFN31HJ-103	M CAPACITOR 0.01 μ F,50V	C110		QCTA1CH-221	CAPACITOR, BR-S800 220pF,16V
C52		QFN31HJ-103	M CAPACITOR 0.01 μ F,50V	C111		QCYA1HK-103	CAPACITOR, BR-S800 0.01 μ F,50V
C53		QETC1CM-107ZE	E CAPACITOR 100 μ F,16V	C114		QETC1CM-476ZE	E CAPACITOR 47 μ F,16V
C54		QETC1CM-107ZE	E CAPACITOR 100 μ F,16V	C115		QENC1CM-106	NP E CAPACITOR 10 μ F,16V
C55		QCYA1HK-103	CAPACITOR 0.01 μ F,50V	C116		QETC1CM-476ZE	E CAPACITOR 47 μ F,16V
C56		QCYA1HK-103	CAPACITOR 0.01 μ F,50V	C117		QENC1CM-106	NP E CAPACITOR 10 μ F,16V
C57		QCYA1HK-102	CAPACITOR 0.001 μ F,50V	C119		QETC1CM-106	E CAPACITOR 10 μ F,16V
C58		QCYA1HK-102	CAPACITOR 0.001 μ F,50V	C120		QETC1CM-476	E CAPACITOR 47 μ F,16V
C59		QFN31HJ-822	M CAPACITOR 0.0082 μ F,50V	C121		QCTA1CH-100	CAPACITOR 10pF,16V
C60		QFN31HJ-822	M CAPACITOR 0.0082 μ F,50V	C122		QETC1CM-106	E CAPACITOR 10 μ F,16V
C61		QFN31HJ-104	M CAPACITOR 0.1 μ F,50V	C123		QETC1CM-476	E CAPACITOR 47 μ F,16V
C62		QFN31HJ-104	M CAPACITOR 0.1 μ F,50V	C124		QETC1CM-476	E CAPACITOR 47 μ F,16V
C63		QFN31HJ-223	M CAPACITOR 0.022 μ F,50V	C125		QCFA1CZ-224	CAPACITOR 0.22 μ F,16V
C64		QFN31HJ-223	M CAPACITOR 0.022 μ F,50V	C126		QCFA1CZ-224	CAPACITOR 0.22 μ F,16V
C65		QCTA1CH-821	CAPACITOR 820pF,16V	C127		QCFA1CZ-224	CAPACITOR 0.22 μ F,16V
C66		QCTA1CH-821	CAPACITOR 820pF,16V	C129		QETC1CM-476	E CAPACITOR 47 μ F,16V
C67		QFN31HJ-392	M CAPACITOR 0.0039 μ F,50V	C130		QETC1CM-476	E CAPACITOR 47 μ F,16V
C68		QFN31HJ-392	M CAPACITOR 0.0039 μ F,50V	C131		QETC1CM-476	E CAPACITOR 47 μ F,16V
C69		QCYA1EK-104	CAPACITOR 0.1 μ F,25V	C133		QETC1CM-476	E CAPACITOR 47 μ F,16V
C70		QCYA1EK-104	CAPACITOR 0.1 μ F,25V	C134		QETC1CM-476	E CAPACITOR 47 μ F,16V
C71		QETC1CM-476ZE	E CAPACITOR 47 μ F,16V	C135		QCYA1HK-272	CAPACITOR 0.0027 μ F,50V
C72		QENC1EM-475	CAPACITOR 4.7 μ F,25V	C136		QETC1CM-106	E CAPACITOR 10 μ F,16V
C73		QCYA1HK-103	CAPACITOR 0.01 μ F,50V	C137		QCYA1HK-102	CAPACITOR 0.01 μ F,50V
C74		QCYA1HK-103	CAPACITOR 0.01 μ F,50V	C168		QETC1CM-476ZE	E CAPACITOR 47 μ F,16V
C75		QCYA1HK-103	CAPACITOR 0.01 μ F,50V	C169		QETC1CM-476	E CAPACITOR 47 μ F,16V
C76		QCYA1HK-103	CAPACITOR 0.01 μ F,50V	C201		QETC1CM-106	E CAPACITOR 10 μ F,16V
C77		QENC1CM-106	E CAPACITOR 10 μ F,16V	C202		QETC1CM-106	E CAPACITOR 10 μ F,16V
C78		QENC1CM-106	E CAPACITOR 10 μ F,16V	L1		PU30284-1R	COIL 100 μ H
C79		QENC1CM-106	NP E CAPACITOR 10 μ F,16V	L2		PU30284-1R	COIL 100 μ H
C80		QENC1CM-106	NP E CAPACITOR 10 μ F,16V	L3		PU48530-331J	COIL 330 μ H
C81		QETC1CM-476ZE	E CAPACITOR 47 μ F,16V	L5		PU48530-331J	COIL 330 μ H
C82		QETC1CM-226ZE	E CAPACITOR 22 μ F,16V	L6		PU48530-331J	COIL 330 μ H
C83		QETC1EM-475ZE	E CAPACITOR 4.7 μ F,25V	BPF1		PU60610	BPF(1.4MHZ)
C84		QETC1CM-476ZE	E CAPACITOR 47 μ F,16V	BPF2		PU60611	BPF(1.8MHZ)
C85		QETC1CM-476ZE	E CAPACITOR 47 μ F,16V	X1		PEVB0335	CRYSTAL RESONATOR
C86		QETC1CM-476ZE	E CAPACITOR 47 μ F,16V				
C87		QENC1CM-106	NP E CAPACITOR 10 μ F,16V				
C88		QENC1CM-106	NP E CAPACITOR 10 μ F,16V				
C89		QCYA1HK-222	CAPACITOR, BR-S800 0.0022 μ F,50V				
C90		QCYA1HK-222	CAPACITOR, BR-S800 0.0022 μ F,50V				
C91		QCYA1HK-222	CAPACITOR, BR-S800 0.0022 μ F,50V				

#△ REF No.	PART No.	PART NAME, DESCRIPTION	#△ REF No.	PART No.	PART NAME, DESCRIPTION
CL1	PGZ01978	MINI CLAMP, BR-S800	Q11	DTC323TK	TRANSISTOR
HD1	PU60521	BOARD HOLDER, × 2	Q12	DTC323TK	TRANSISTOR
HD2	PU60522	BOARD HOLDER	Q13	DTC323TK	TRANSISTOR
SPC1	PGZ01128-02	SPACER, × 2	Q14	DTC323TK	TRANSISTOR
TP1	SQMX001-001Z	TEST PIN, × 6	Q15	DTC124EK	TRANSISTOR
CN1	PGZ01937-44	MALE CONNECTOR	Q16	DTC124EK	TRANSISTOR
CN2	PU59555-4	CONNECTOR, BR-S500	Q17	DTA124EK	TRANSISTOR
CN2	PU59555-6	CONNECTOR, BR-S800	Q18	DTA124EK	TRANSISTOR
CN3	PU59973-18	CONNECTOR, BR-S800	Q19	DTC323TK	TRANSISTOR
CN4	PU59973-30	CONNECTOR	Q20	DTC323TK	TRANSISTOR
CN5	PU59973-30	CONNECTOR	Q21	DTC323TK	TRANSISTOR
N. AUDIO BOARD ASSEMBLY, BR-S800 <21>			Q22	DTC323TK	TRANSISTOR
PWBA	PRK20274A-03	NORMAL AUDIO BOARD ASSY	Q201	2SD638R,S	TRANSISTOR
IC1	BA7765AS	IC	Q202	2SD638R,S	TRANSISTOR
	or XRA7765AS	IC	Q203	2SA1037K	TRANSISTOR
IC2	BA7765AS	IC	Q204	2SA1037K	TRANSISTOR
	or XRA7765AS	IC	Q205	2SC2412K	TRANSISTOR
IC3	CXA1101P	IC	Q206	2SC2412K	TRANSISTOR
IC4	CXA1101P	IC	Q207	2SC2412K	TRANSISTOR
IC5	M5218AP	IC	Q208	2SC2412K	TRANSISTOR
IC6	M5218AP	IC	Q213	2SA1037K	TRANSISTOR
IC7	M51132L	IC	Q214	2SA1037K	TRANSISTOR
IC8	M51132L	IC	△ Q215	2SB643R,S	TRANSISTOR
IC9	M51132L	IC	△ Q216	2SB643R,S	TRANSISTOR
IC10	M51132L	IC	Q217	2SC2412K	TRANSISTOR
IC11	TC4053BP	IC	Q218	2SC2412K	TRANSISTOR
IC201	NJM4560D	IC	△ Q219	2SD638R,S	TRANSISTOR
IC202	M5218AP	IC	△ Q220	2SD638R,S	TRANSISTOR
IC301	TC4066BP	IC	Q221	2SC2412K	TRANSISTOR
IC302	M5218AP	IC	Q222	2SC2412K	TRANSISTOR
IC303	M5218AP	IC	Q223	2SC2412K	TRANSISTOR
IC304	UPC393C	IC	Q224	2SC2412K	TRANSISTOR
IC305	M5278L09	IC	Q225	2SC2412K	TRANSISTOR
Q1	2SD973R	TRANSISTOR	Q226	2SC2412K	TRANSISTOR
Q2	DTC124EK	TRANSISTOR	Q227	2SC2412K	TRANSISTOR
Q3	DTC124EK	TRANSISTOR	Q228	2SC2412K	TRANSISTOR
Q4	DTC124EK	TRANSISTOR	Q229	DTA124EK	TRANSISTOR
Q5	2SC2412K(QR)	TRANSISTOR	Q230	DTA124EK	TRANSISTOR
Q6	DTC124EK	TRANSISTOR	Q231	DTC124EK	TRANSISTOR
Q7	DTC124EK	TRANSISTOR	Q232	DTC124EK	TRANSISTOR
Q8	DTC124EK	TRANSISTOR	Q233	2SC2412K	TRANSISTOR
Q9	DTA124EK	TRANSISTOR	Q234	2SC2412K	TRANSISTOR
Q10	DTA124EK	TRANSISTOR	Q302	DTA124EK	TRANSISTOR
			Q303	DTC323TK	TRANSISTOR
			Q305	DTA124EK	TRANSISTOR
			Q306	DTC323TK	TRANSISTOR
			Q307	2SC2412K	TRANSISTOR
			D1	ERA15-02PNLB	DIODE
			D201	RD5.6ES-T1B2	ZENER DIODE
			D202	RD5.6ES-T1B2	ZENER DIODE
			D302	DA204K	DIODE
			DA201	DA204K	DIODE

#	REF No.	PART No.	PART NAME, DESCRIPTION	#	REF No.	PART No.	PART NAME, DESCRIPTION
R1		QRSA08J-222YN	RESISTOR 2.2k Ω ,1/10W	R61		QRSA08J-820YN	RESISTOR 82 Ω ,1/10W
R2		QRSA08J-103YN	RESISTOR 10k Ω ,1/10W	R62		QRSA08J-820YN	RESISTOR 82 Ω ,1/10W
R3		QRSA08J-473YN	RESISTOR 47k Ω ,1/10W	R63		QRSA08J-223YN	RESISTOR 22k Ω ,1/10W
R4		QRSA08J-473YN	RESISTOR 47k Ω ,1/10W	R64		QRSA08J-223YN	RESISTOR 22k Ω ,1/10W
R5		QRSA08J-152YN	RESISTOR 1.5k Ω ,1/10W	R65		QRSA08J-102YN	RESISTOR 1k Ω ,1/10W
R6		QRSA08J-152YN	RESISTOR 1.5k Ω ,1/10W	R66		QRSA08J-102YN	RESISTOR 1k Ω ,1/10W
R7		QRSA08J-103YN	RESISTOR 10k Ω ,1/10W	R67		QRSA08J-105YN	RESISTOR 1M Ω ,1/10W
R9		QRSA08J-223YN	RESISTOR 22k Ω ,1/10W	R68		QRSA08J-105YN	RESISTOR 1M Ω ,1/10W
R10		QRSA08J-223YN	RESISTOR 22k Ω ,1/10W				
R11		QRSA08J-124YN	RESISTOR 120k Ω ,1/10W	R71		QRSA08J-392YN	RESISTOR 3.9k Ω ,1/10W
R12		QRSA08J-124YN	RESISTOR 120k Ω ,1/10W	R72		QRSA08J-392YN	RESISTOR 3.9k Ω ,1/10W
R13		QRSA08J-432YN	RESISTOR 4.3k Ω ,1/10W	R73		QRSA08J-331YN	RESISTOR 330 Ω ,1/10W
R14		QRSA08J-432YN	RESISTOR 4.3k Ω ,1/10W	R74		QRSA08J-331YN	RESISTOR 330 Ω ,1/10W
R15		QRSA08J-101YN	RESISTOR 100 Ω ,1/10W	R75		QRSA08J-392YN	RESISTOR 3.9k Ω ,1/10W
R16		QRSA08J-101YN	RESISTOR 100 Ω ,1/10W	R76		QRSA08J-392YN	RESISTOR 3.9k Ω ,1/10W
R17		QRSA08J-124YN	RESISTOR 120k Ω ,1/10W	R77		QRSA08J-331YN	RESISTOR 330 Ω ,1/10W
R18		QRSA08J-124YN	RESISTOR 120k Ω ,1/10W	R78		QRSA08J-331YN	RESISTOR 330 Ω ,1/10W
				R79		QRSA08J-433YN	RESISTOR 43k Ω ,1/10W
R21		QRSA08J-822YN	RESISTOR 8.2k Ω ,1/10W	R80		QRSA08J-433YN	RESISTOR 43k Ω ,1/10W
R22		QRSA08J-822YN	RESISTOR 8.2k Ω ,1/10W				
R23		QRSA08J-103YN	RESISTOR 10k Ω ,1/10W	R81		QRSA08J-122YN	RESISTOR 1.2k Ω ,1/10W
R24		QRSA08J-103YN	RESISTOR 10k Ω ,1/10W	R82		QRSA08J-122YN	RESISTOR 1.2k Ω ,1/10W
R25		QRSA08J-103YN	RESISTOR 10k Ω ,1/10W	R83		QRSA08J-123YN	RESISTOR 12k Ω ,1/10W
R26		QRSA08J-103YN	RESISTOR 10k Ω ,1/10W	R84		QRSA08J-123YN	RESISTOR 12k Ω ,1/10W
R27		QRSA08J-473YN	RESISTOR 47k Ω ,1/10W	R85		QRSA08J-473YN	RESISTOR 47k Ω ,1/10W
R28		QRSA08J-473YN	RESISTOR 47k Ω ,1/10W	R86		QRSA08J-473YN	RESISTOR 47k Ω ,1/10W
R29		QRSA08J-473YN	RESISTOR 47k Ω ,1/10W	R87		QRSA08J-564YN	RESISTOR 560k Ω ,1/10W
R30		QRSA08J-473YN	RESISTOR 47k Ω ,1/10W	R88		QRSA08J-564YN	RESISTOR 560k Ω ,1/10W
				R89		QRSA08J-473YN	RESISTOR 47k Ω ,1/10W
R31		QRSA08J-473YN	RESISTOR 47k Ω ,1/10W	R90		QRSA08J-473YN	RESISTOR 47k Ω ,1/10W
R32		QRSA08J-473YN	RESISTOR 47k Ω ,1/10W				
R33		QRSA08J-473YN	RESISTOR 47k Ω ,1/10W	R91		QRSA08J-473YN	RESISTOR 47k Ω ,1/10W
R34		QRSA08J-473YN	RESISTOR 47k Ω ,1/10W	R92		QRSA08J-473YN	RESISTOR 47k Ω ,1/10W
R35		QRSA08J-332YN	RESISTOR 3.3k Ω ,1/10W	R93		QRSA08J-472YN	RESISTOR 4.7k Ω ,1/10W
R36		QRSA08J-332YN	RESISTOR 3.3k Ω ,1/10W	R94		QRSA08J-472YN	RESISTOR 4.7k Ω ,1/10W
R37		QRSA08J-103YN	RESISTOR 10k Ω ,1/10W	R99		QRSA08J-272YN	RESISTOR 2.7k Ω ,1/10W
R38		QRSA08J-103YN	RESISTOR 10k Ω ,1/10W	R100		QRSA08J-272YN	RESISTOR 2.7k Ω ,1/10W
R39		QRSA08J-562YN	RESISTOR 5.6k Ω ,1/10W				
R40		QRSA08J-562YN	RESISTOR 5.6k Ω ,1/10W	R101		QRSA08J-123YN	RESISTOR 12k Ω ,1/10W
				R102		QRSA08J-123YN	RESISTOR 12k Ω ,1/10W
R41		QRSA08J-183YN	RESISTOR 18k Ω ,1/10W	R103		QRSA08J-562YN	RESISTOR 5.6k Ω ,1/10W
R42		QRSA08J-183YN	RESISTOR 18k Ω ,1/10W	R104		QRSA08J-562YN	RESISTOR 5.6k Ω ,1/10W
R43		QRSA08J-222YN	RESISTOR 2.2k Ω ,1/10W	R105		QRSA08J-183YN	RESISTOR 18k Ω ,1/10W
R44		QRSA08J-222YN	RESISTOR 2.2k Ω ,1/10W	R106		QRSA08J-183YN	RESISTOR 18k Ω ,1/10W
R45		QRSA08J-222YN	RESISTOR 2.2k Ω ,1/10W	R107		QRSA08J-271YN	RESISTOR 27 Ω ,1/10W
R46		QRSA08J-222YN	RESISTOR 2.2k Ω ,1/10W	R108		QRSA08J-271YN	RESISTOR 27 Ω ,1/10W
R47		QRSA08J-103YN	RESISTOR 10k Ω ,1/10W	R109		QRSA08J-103YN	RESISTOR 10k Ω ,1/10W
R48		QRSA08J-103YN	RESISTOR 10k Ω ,1/10W	R110		QRSA08J-103YN	RESISTOR 10k Ω ,1/10W
R49		QRSA08J-105YN	RESISTOR 1M Ω ,1/10W				
R50		QRSA08J-105YN	RESISTOR 1M Ω ,1/10W	R111		QRSA08J-0R0Y	RESISTOR 1 Ω ,1/10W
				R112		QRSA08J-0R0Y	RESISTOR 1 Ω ,1/10W
R51		QRSA08J-103YN	RESISTOR 10k Ω ,1/10W	R115		QRSA08J-183YN	RESISTOR 18k Ω ,1/10W
R52		QRSA08J-103YN	RESISTOR 10k Ω ,1/10W	R116		QRSA08J-183YN	RESISTOR 18k Ω ,1/10W
R53		QRSA08J-333YN	RESISTOR 33k Ω ,1/10W	R117		QRSA08J-562YN	RESISTOR 5.6k Ω ,1/10W
R54		QRSA08J-333YN	RESISTOR 33k Ω ,1/10W	R118		QRSA08J-562YN	RESISTOR 5.6k Ω ,1/10W
R55		QRSA08J-562YN	RESISTOR 5.6k Ω ,1/10W	R119		QRSA08J-223YN	RESISTOR 22k Ω ,1/10W
R56		QRSA08J-562YN	RESISTOR 5.6k Ω ,1/10W				
R57		QRSA08J-473YN	RESISTOR 47k Ω ,1/10W	R121		QRSA08J-153YN	RESISTOR 15k Ω ,1/10W
R58		QRSA08J-473YN	RESISTOR 47k Ω ,1/10W	R122		QRSA08J-153YN	RESISTOR 15k Ω ,1/10W
R59		QRSA08J-202YN	RESISTOR 2k Ω ,1/10W	R123		QRSA08J-102YN	RESISTOR 1k Ω ,1/10W
R60		QRSA08J-202YN	RESISTOR 2k Ω ,1/10W	R124		QRSA08J-102YN	RESISTOR 1k Ω ,1/10W
				R126		QRSA08J-472YN	RESISTOR 4.7k Ω ,1/10W
				R127		QRSA08J-123YN	RESISTOR 12k Ω ,1/10W

#△	REF No.	PART No.	PART NAME, DESCRIPTION	#△	REF No.	PART No.	PART NAME, DESCRIPTION
	R128	QRSA08J-123YN	RESISTOR 12kΩ,1/10W		R262	QRSA08J-273YN	RESISTOR 27kΩ,1/10W
	R130	QRSA08J-102YN	RESISTOR 1kΩ,1/10W		R263	QRSA08J-273YN	RESISTOR 27kΩ,1/10W
	R201	QRSA08J-681YN	RESISTOR 680Ω,1/10W		R264	QRSA08J-123YN	RESISTOR 12kΩ,1/10W
	R202	QRSA08J-681YN	RESISTOR 680Ω,1/10W		R265	QRSA08J-123YN	RESISTOR 12kΩ,1/10W
	R203	QRSA08J-122YN	RESISTOR 1.2kΩ,1/10W		R267	QRSA08J-2R2YN	RESISTOR 2.2Ω,1/10W
	R204	QRSA08J-122YN	RESISTOR 1.2kΩ,1/10W		R268	QRSA08J-2R2YN	RESISTOR 2.2Ω,1/10W
	R205	QRSA08J-332YN	RESISTOR 3.3kΩ,1/10W		R269	QRSA08J-273YN	RESISTOR 27kΩ,1/10W
	R206	QRSA08J-332YN	RESISTOR 3.3kΩ,1/10W		R270	QRSA08J-273YN	RESISTOR 27kΩ,1/10W
	R207	QRSA08J-393YN	RESISTOR 39kΩ,1/10W		R271	QRSA08J-392YN	RESISTOR 3.9kΩ,1/10W
	R208	QRSA08J-393YN	RESISTOR 39kΩ,1/10W		R272	QRSA08J-392YN	RESISTOR 3.9kΩ,1/10W
	R209	QRSA08J-182YN	RESISTOR 1.8kΩ,1/10W		R273	QRSA08J-561YN	RESISTOR 560Ω,1/10W
	R210	QRSA08J-182YN	RESISTOR 1.8kΩ,1/10W		R274	QRSA08J-561YN	RESISTOR 560Ω,1/10W
△	R213	QRZ0054-180	FUSIBLE RESISTOR 18Ω		R275	QRSA08J-122YN	RESISTOR 1.2kΩ,1/10W
△	R214	QRZ0054-180	FUSIBLE RESISTOR 18Ω		R276	QRSA08J-122YN	RESISTOR 1.2kΩ,1/10W
	R215	QRSA08J-221YN	RESISTOR 220Ω,1/10W		R277	QRSA08J-563YN	RESISTOR 56kΩ,1/10W
	R216	QRSA08J-221YN	RESISTOR 220Ω,1/10W		R278	QRSA08J-563YN	RESISTOR 56kΩ,1/10W
	R217	QRSA08J-122YN	RESISTOR 1.2kΩ,1/10W		R279	QRSA08J-822YN	RESISTOR 8.2kΩ,1/10W
	R218	QRSA08J-122YN	RESISTOR 1.2kΩ,1/10W		R280	QRSA08J-822YN	RESISTOR 8.2kΩ,1/10W
	R219	QRSA08J-392YN	RESISTOR 3.9kΩ,1/10W		R281	QRSA08J-2R2YN	THERMISTOR
	R220	QRSA08J-392YN	RESISTOR 3.9kΩ,1/10W		R282	QRSA08J-2R2YN	THERMISTOR
	R221	QRSA08J-223YN	RESISTOR 22kΩ,1/10W		R283	QRSA08J-181YN	RESISTOR 180Ω,1/10W
	R222	QRSA08J-223YN	RESISTOR 22kΩ,1/10W		R284	QRSA08J-181YN	RESISTOR 180Ω,1/10W
	R223	QRSA08J-473YN	RESISTOR 47kΩ,1/10W		R285	QRSA08J-2R2YN	RESISTOR 2.2Ω,1/10W
	R224	QRSA08J-473YN	RESISTOR 47kΩ,1/10W		R286	QRSA08J-2R2YN	RESISTOR 2.2Ω,1/10W
	R225	QRSA08J-473YN	RESISTOR 47kΩ,1/10W		R287	QRSA08J-272YN	RESISTOR 2.7kΩ,1/10W
	R226	QRSA08J-473YN	RESISTOR 47kΩ,1/10W		R288	QRSA08J-272YN	RESISTOR 2.7kΩ,1/10W
	R227	QRSA08J-221YN	RESISTOR 220Ω,1/10W		R289	QRSA08J-563YN	RESISTOR 56kΩ,1/10W
	R228	QRSA08J-221YN	RESISTOR 220Ω,1/10W		R290	QRSA08J-563YN	RESISTOR 56kΩ,1/10W
	R229	QRSA08J-221YN	RESISTOR 220Ω,1/10W		R291	QRSA08J-822YN	RESISTOR 8.2kΩ,1/10W
	R230	QRSA08J-221YN	RESISTOR 220Ω,1/10W		R292	QRSA08J-822YN	RESISTOR 8.2kΩ,1/10W
	R231	QRSA08J-222YN	RESISTOR 2.2kΩ,1/10W		R301	QRSA08J-823YN	RESISTOR 82kΩ,1/10W
	R232	QRSA08J-222YN	RESISTOR 2.2kΩ,1/10W		R302	QRSA08J-823YN	RESISTOR 82kΩ,1/10W
	R233	QRSA08J-222YN	RESISTOR 2.2kΩ,1/10W		R303	QRSA08J-823YN	RESISTOR 82kΩ,1/10W
	R234	QRSA08J-222YN	RESISTOR 2.2kΩ,1/10W		R304	QRSA08J-184YN	RESISTOR 180kΩ,1/10W
△	R235	QRD161J-1R0	FUSIBLE RESISTOR 1Ω,1/6W		R305	QRSA08J-563YN	RESISTOR 56kΩ,1/10W
△	R236	QRD161J-1R0	FUSIBLE RESISTOR 1Ω,1/6W		R306	QRSA08J-333YN	RESISTOR 33kΩ,1/10W
△	R237	QRD161J-1R0	FUSIBLE RESISTOR 1Ω,1/6W		R307	QRSA08J-122YN	RESISTOR 1.2kΩ,1/10W
△	R238	QRD161J-1R0	FUSIBLE RESISTOR 1Ω,1/6W		R308	QRSA08J-685YN	RESISTOR 6.8MΩ,1/10W
△	R239	QRZ0054-120	FUSIBLE RESISTOR 12Ω		R309	QRSA08J-101YN	RESISTOR 100Ω,1/10W
△	R240	QRZ0054-120	FUSIBLE RESISTOR 12Ω		R310	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
	R245	QRSA08J-222YN	RESISTOR 2.2kΩ,1/10W		R311	QRSA08J-331YN	RESISTOR 330Ω,1/10W
	R246	QRSA08J-222YN	RESISTOR 2.2kΩ,1/10W		R312	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
	R247	QRSA08J-222YN	RESISTOR 2.2kΩ,1/10W		R315	NRVA62D-823N	RESISTOR 82kΩ,1/16W
	R248	QRSA08J-222YN	RESISTOR 2.2kΩ,1/10W		R316	QRSA08J-182YN	RESISTOR 1.8kΩ,1/10W
	R249	QRSA08J-2R2YN	RESISTOR 2.2Ω,1/10W		R317	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
	R250	QRSA08J-2R2YN	RESISTOR 2.2Ω,1/10W		R318	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
	R251	QRSA08J-824YN	RESISTOR 820kΩ,1/10W		R319	QRSA08J-184YN	RESISTOR 180kΩ,1/10W
	R252	QRSA08J-822YN	RESISTOR 8.2kΩ,1/10W		R320	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
	R253	QRSA08J-912YN	RESISTOR 9.1kΩ,1/10W		R321	QRSA08J-105YN	RESISTOR 1MΩ,1/10W
	R254	QRSA08J-822YN	RESISTOR 8.2kΩ,1/10W		R322	QRSA08J-474YN	RESISTOR 470kΩ,1/10W
	R255	QRSA08J-823YN	RESISTOR 82kΩ,1/10W		R323	QRSA08J-474YN	RESISTOR 470kΩ,1/10W
	R256	QRSA08J-823YN	RESISTOR 82kΩ,1/10W		R324	QRSA08J-823YN	RESISTOR 82kΩ,1/10W
	R257	QRSA08J-153YN	RESISTOR 15kΩ,1/10W		R325	QRSA08J-823YN	RESISTOR 82kΩ,1/10W
	R258	QRSA08J-153YN	RESISTOR 15kΩ,1/10W		R326	QRSA08J-682YN	RESISTOR 6.8kΩ,1/10W
	R259	QRSA08J-682YN	RESISTOR 6.8kΩ,1/10W		R327	QRSA08J-474YN	RESISTOR 470kΩ,1/10W
	R260	QRSA08J-682YN	RESISTOR 6.8kΩ,1/10W		R328	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
					R329	QRSA08J-104YN	RESISTOR 100kΩ,1/10W

#	REF No.	PART No.	PART NAME, DESCRIPTION		#	REF No.	PART No.	PART NAME, DESCRIPTION	
R330		QRSA08J-682 YN	RESISTOR	6.8k Ω , 1/10W	C43		QETC1CM-226ZE	E CAPACITOR	22 μ F, 16V
R331		QRSA08J-223 YN	RESISTOR	22k Ω , 1/10W	C44		QETC1CM-226ZE	E CAPACITOR	22 μ F, 16V
R332		QRSA08J-472 YN	RESISTOR	4.7k Ω , 1/10W	C45		QETC1CM-226ZE	E CAPACITOR	22 μ F, 16V
R333		QRSA08J-472 YN	RESISTOR	4.7k Ω , 1/10W	C46		QETC1CM-226ZE	E CAPACITOR	22 μ F, 16V
R334		QRSA08J-103 YN	RESISTOR	10k Ω , 1/10W	C47		QENC1CM-106	NP E CAPACITOR	10 μ F, 16V
R335		QRSA08J-103 YN	RESISTOR	10k Ω , 1/10W	C48		QENC1CM-106	NP E CAPACITOR	10 μ F, 16V
R336		QRSA08J-561 YN	RESISTOR	560 Ω , 1/10W	C49		QRD161J-0R0	RESISTOR	0 Ω , 1/6W
R337		QRSA08J-750 YN	RESISTOR	75 Ω , 1/10W	C50		QRD161J-0R0	RESISTOR	0 Ω , 1/6W
R338		QRSA08J-103 YN	RESISTOR	10k Ω , 1/10W	C51		QFN31HJ-273	M CAPACITOR	0.027 μ F, 50V
R341		QRSA08J-104 YN	RESISTOR	100k Ω , 1/10W	C52		QFN31HJ-273	M CAPACITOR	0.027 μ F, 50V
R342		QRSA08J-473 YN	RESISTOR	47k Ω , 1/10W	C53		QETC1CM-476ZE	E CAPACITOR	47 μ F, 16V
R343		QRSA08J-153 YN	RESISTOR	15k Ω , 1/10W	C54		QETC1CM-476ZE	E CAPACITOR	47 μ F, 16V
R344		QRSA08J-682 YN	RESISTOR	6.8k Ω , 1/10W	C55		QETC1HM-475ZE	E CAPACITOR	4.7 μ F, 50V
R345		QRSA08J-472 YN	RESISTOR	4.7k Ω , 1/10W	C56		QETC1HM-475ZE	E CAPACITOR	4.7 μ F, 50V
C1		QCYA1HK-103	CAPACITOR	0.01 μ F, 50V	C57		QFN31HJ-473	E CAPACITOR	0.047 μ F, 50V
C2		QETC1CM-107ZE	E CAPACITOR	100 μ F, 16V	C58		QFN31HJ-473	E CAPACITOR	0.047 μ F, 50V
C3		QETC1CM-107ZE	E CAPACITOR	100 μ F, 16V	C59		QETC1CM-476ZE	E CAPACITOR	47 μ F, 16V
C4		QETC1CM-107ZE	E CAPACITOR	100 μ F, 16V	C60		QETC1CM-476ZE	E CAPACITOR	47 μ F, 16V
C5		QCYA1HK-103	CAPACITOR	0.01 μ F, 50V	C61		QETC1CM-336ZE	E CAPACITOR	33 μ F, 16V
C6		QETC1CM-476ZE	E CAPACITOR	47 μ F, 16V	C62		QETC1CM-336ZE	E CAPACITOR	33 μ F, 16V
C7		QENC1CM-106	NP E CAPACITOR	10 μ F, 16V	C63		QETC1CM-106ZE	E CAPACITOR	10 μ F, 16V
C9		QENC1CM-106	NP E CAPACITOR	10 μ F, 16V	C64		QETC1CM-106ZE	E CAPACITOR	10 μ F, 16V
C10		QENC1CM-106	NP E CAPACITOR	10 μ F, 16V	C65		QFN31HJ-822	M CAPACITOR	0.0082 μ F, 50V
C11		QCSA1HJ-122	CAPACITOR	0.0012 μ F, 50V	C66		QFN31HJ-822	M CAPACITOR	0.0082 μ F, 50V
C12		QCSA1HJ-122	CAPACITOR	0.0012 μ F, 50V	C67		QFN31HJ-103	M CAPACITOR	0.01 μ F, 50V
C13		QEBA1EM-475	E CAPACITOR	4.7 μ F, 25V	C68		QFN31HJ-103	M CAPACITOR	0.01 μ F, 50V
C14		QEBA1EM-475	E CAPACITOR	4.7 μ F, 25V	C69		QETC1HM-105ZE	E CAPACITOR	1 μ F, 50V
C15		QFN31HJ-273	M CAPACITOR	0.027 μ F, 50V	C70		QETC1HM-105ZE	E CAPACITOR	1 μ F, 50V
C16		QFN31HJ-273	M CAPACITOR	0.027 μ F, 50V	C71		QETC1CM-107ZE	E CAPACITOR	100 μ F, 16V
C17		QCTA1CH-101	CAPACITOR	100pF, 16V	C72		QETC1CM-107ZE	E CAPACITOR	100 μ F, 16V
C18		QCTA1CH-101	CAPACITOR	100pF, 16V	C73		QETC1HM-105ZE	E CAPACITOR	1 μ F, 50V
C19		QETC1CM-107ZE	E CAPACITOR	100 μ F, 16V	C74		QETC1HM-105ZE	E CAPACITOR	1 μ F, 50V
C20		QETC1CM-107ZE	E CAPACITOR	100 μ F, 16V	C75		QETC1CM-107ZE	E CAPACITOR	100 μ F, 16V
C21		QETC1CM-476ZE	E CAPACITOR	47 μ F, 16V	C76		QETC1CM-107ZE	E CAPACITOR	100 μ F, 16V
C22		QETC1CM-476ZE	E CAPACITOR	47 μ F, 16V	C77		QETC1CM-106ZE	E CAPACITOR	10 μ F, 16V
C23		QCTA1CH-331	CAPACITOR	330pF, 16V	C78		QETC1CM-106ZE	E CAPACITOR	10 μ F, 16V
C24		QCTA1CH-331	CAPACITOR	330pF, 16V	C79		NEE21VM-684RY	TANTAL CAPACITOR	0.68 μ F, 35V
C25		QCTA1CH-331	CAPACITOR	330pF, 16V	C80		NEE21VM-684RY	TANTAL CAPACITOR	0.68 μ F, 35V
C26		QCTA1CH-331	CAPACITOR	330pF, 16V	C81		QENC1CM-106	NP E CAPACITOR	10 μ F, 16V
C27		QENC1CM-106	NP E CAPACITOR	10 μ F, 16V	C82		QENC1CM-106	NP E CAPACITOR	10 μ F, 16V
C28		QENC1CM-106	NP E CAPACITOR	10 μ F, 16V	C83		QETC1CM-476ZE	E CAPACITOR	47 μ F, 16V
C29		QETC1CM-476ZE	E CAPACITOR	47 μ F, 16V	C84		QETC1CM-476ZE	E CAPACITOR	47 μ F, 16V
C30		QETC1CM-476ZE	E CAPACITOR	47 μ F, 16V	C85		QETC1CM-226ZE	E CAPACITOR	22 μ F, 16V
C31		QETC1CM-226ZE	E CAPACITOR	22 μ F, 16V	C86		QETC1CM-226ZE	E CAPACITOR	22 μ F, 16V
C32		QETC1CM-226ZE	E CAPACITOR	22 μ F, 16V	C87		QETC1EM-475ZE	E CAPACITOR	4.7 μ F, 25V
C33		QETC1EM-475ZE	E CAPACITOR	4.7 μ F, 25V	C88		QETC1EM-475ZE	E CAPACITOR	4.7 μ F, 25V
C34		QETC1EM-475ZE	E CAPACITOR	4.7 μ F, 25V	C89		QENC1CM-106	NP E CAPACITOR	10 μ F, 16V
C35		QFN31HJ-682	M CAPACITOR	0.0068 μ F, 50V	C90		QENC1CM-106	NP E CAPACITOR	10 μ F, 16V
C36		QFN31HJ-682	M CAPACITOR	0.0068 μ F, 50V	C91		QCTA1CH-101	CAPACITOR	100pF, 16V
C37		QENC1CM-106	NP E CAPACITOR	10 μ F, 16V	C92		QCTA1CH-101	CAPACITOR	100pF, 16V
C38		QENC1CM-106	NP E CAPACITOR	10 μ F, 16V	C95		QETC1HM-224ZE	E CAPACITOR	1.22 μ F, 50V
C39		QCTA1CH-101	CAPACITOR	100pF, 16V	C96		QETC1HM-224ZE	E CAPACITOR	1.22 μ F, 50V
C40		QCTA1CH-101	CAPACITOR	100pF, 16V	C97		QFN31HJ-123	M CAPACITOR	0.012 μ F, 50V
C41		QCTA1CH-101	CAPACITOR	100pF, 16V	C98		QFN31HJ-123	M CAPACITOR	0.012 μ F, 50V
C42		QCTA1CH-101	CAPACITOR	100pF, 16V	C99		QFN31HJ-273	M CAPACITOR	0.027 μ F, 50V
					C100		QFN31HJ-273	M CAPACITOR	0.027 μ F, 50V
					C101		QENC1CM-106	NP E CAPACITOR	10 μ F, 16V

#△ REF No.	PART No.	PART NAME, DESCRIPTION		#△ REF No.	PART No.	PART NAME, DESCRIPTION	
C102	QENC1CM-106	NP E CAPACITOR	10 μ F,16V	C243	QCYA1HK-102	CAPACITOR	0.001 μ F,50V
C105	QCF81 CZ-105	CAPACITOR	1 μ F,16V	C244	QCYA1HK-102	CAPACITOR	0.001 μ F,50V
C106	QCF81 CZ-105	CAPACITOR	1 μ F,16V				
C109	QETC1CM-106ZE	E CAPACITOR	10 μ F,16V	C301	QFN31HJ-153	M CAPACITOR	0.015 μ F,50V
C110	QETC1CM-106ZE	E CAPACITOR	10 μ F,16V	C302	QETC1AM-227	E CAPACITOR	220 μ F,10V
				C303	QENC1CM-106	NP E CAPACITOR	10 μ F,16V
C111	QCF81 CZ-105	CAPACITOR	1 μ F,16V	C304	QFN31HJ-333	M CAPACITOR	0.033 μ F,50V
C112	QCF81 CZ-105	CAPACITOR	1 μ F,16V	C305	QCSA1HJ-122	CAPACITOR	0.0012 μ F,50V
C113	QCF81 CZ-105	CAPACITOR	1 μ F,16V	C306	QCSA1HJ-122	CAPACITOR	0.0012 μ F,50V
C114	QCF81 CZ-105	CAPACITOR	1 μ F,16V	C307	QFN31HJ-103	M CAPACITOR	0.01 μ F,50V
C115	QENC1CM-106	NP E CAPACITOR	10 μ F,16V	C308	QCTA1CH-270	CAPACITOR	27pF,16V
C116	QENC1CM-106	NP E CAPACITOR	10 μ F,16V	C309	QETC1EM-475	E CAPACITOR	4.7 μ F,25V
C117	QENC1CM-106	NP E CAPACITOR	10 μ F,16V	C310	QENC1CM-106	NP E CAPACITOR	10 μ F,16V
C118	QENC1CM-106	NP E CAPACITOR	10 μ F,16V				
C119	QCSA1 HJ-821	CAPACITOR	820pF,50V	C311	QETC1CM-226	E CAPACITOR	22 μ F,16V
C120	QCSA1 HJ-821	CAPACITOR	820pF,50V	C312	QETC1CM-476	E CAPACITOR	47 μ F,16V
				C313	QETC1EM-475	E CAPACITOR	4.7 μ F,25V
C121	QCTA1CH-101	CAPACITOR	100pF,16V	C314	QETC1EM-475	E CAPACITOR	4.7 μ F,25V
C122	QCTA1CH-101	CAPACITOR	100pF,16V	C315	QETC1CM-106	E CAPACITOR	10 μ F,16V
C123	QCYA1HK-392	CAPACITOR	0.0039 μ F,50V	C316	QEE81EM-105	NP E CAPACITOR	1 μ F,25V
C124	QCYA1HK-392	CAPACITOR	0.0039 μ F,50V	C317	QETC1CM-476	E CAPACITOR	47 μ F,16V
C126	QCYA1HK-473	CAPACITOR	0.047 μ F,50V	C318	QENC1EM-475	NP E CAPACITOR	4.7 μ F,25V
				C319	QETC1CM-106	E CAPACITOR	10 μ F,16V
C201	QCYA1HK-103	CAPACITOR	0.01 μ F,50V	C320	QENC1EM-475	NP E CAPACITOR	4.7 μ F,25V
C202	QCYA1HK-103	CAPACITOR	0.01 μ F,50V				
C203	QETC1CM-476	E CAPACITOR	47 μ F,16V	C321	QETC1CM-227	E CAPACITOR	220 μ F,16V
C204	QETC1CM-476	E CAPACITOR	47 μ F,16V	C322	QETC1CM-476	E CAPACITOR	47 μ F,16V
C205	QETC1CM-476	E CAPACITOR	47 μ F,16V	C326	QETC1CM-106	E CAPACITOR	10 μ F,16V
C206	QETC1CM-476	E CAPACITOR	47 μ F,16V	C328	QETC1CM-476	E CAPACITOR	47 μ F,16V
C207	QFP32AJ-102	PP CAPACITOR	0.001 μ F,100V	C329	QCTA1CH-101	CAPACITOR	100pF,16V
C208	QFP32AJ-102	PP CAPACITOR	0.001 μ F,100V				
C209	QCT25CH-181	CAPACITOR	180pF	L1	PGZ00917-822	COIL	
C210	QCT25CH-181	CAPACITOR	180pF	L2	PGZ00917-822	COIL	
				L3	PGZ00917-822	COIL	
C211	QCYA1HK-103	CAPACITOR	0.01 μ F,50V	L4	PGZ00917-822	COIL	
C212	QCYA1HK-103	CAPACITOR	0.01 μ F,50V	L5	PGZ00917-472	COIL	
C213	QCTA1CH-221	CAPACITOR	220pF,16V	L6	PGZ00917-472	COIL	
C214	QCTA1CH-221	CAPACITOR	220pF,16V				
C215	QCTA1CH-221	CAPACITOR	220pF,16V	L201	PU48530-3R9K	COIL	3.9 μ H
C216	QCTA1CH-221	CAPACITOR	220pF,16V	L203	PU48530-330J	COIL	33 μ H
C217	QFP32AJ-123	PP CAPACITOR	0.012 μ F,100V	L204	PU48530-330J	COIL	33 μ H
C218	QFP32AJ-123	PP CAPACITOR	0.012 μ F,100V				
C219	QETC1CM-476	E CAPACITOR	47 μ F,16V	L301	PGZ02044-222K	COIL	
C220	QETC1CM-476	E CAPACITOR	47 μ F,16V				
C221	QCYA1EK-103	CAPACITOR	0.01 μ F,25V				
C222	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	LPF1	PU60206	LOW PASS FILTER	
C223	QCYA1EK-103	CAPACITOR	0.01 μ F,25V	LPF2	PU60206	LOW PASS FILTER	
C224	QCYA1EK-103	CAPACITOR	0.01 μ F,25V				
C227	QCYA1HK-223	CAPACITOR	0.022 μ F,50V				
C228	QCTA1CH-271	CAPACITOR	270pF,16V	RY1	PU55260	RELAY	
C229	QCTA1CH-271	CAPACITOR	270pF,16V				
C230	QCTA1CH-271	CAPACITOR	270pF,16V				
				△ TH1	ERT-D2FGL103S	THERMISTOR	
C231	QCYA1HK-103	CAPACITOR	0.01 μ F,50V	△ TH2	ERT-D2FGL103S	THERMISTOR	
C232	QETC1CM-476	E CAPACITOR	47 μ F,16V	△ TH3	ERT-D2FHL462S	THERMISTOR	
C233	QCYA1HK-103	CAPACITOR	0.01 μ F,50V	△ TH4	ERT-D2FHL462S	THERMISTOR	
C234	QCYA1HK-103	CAPACITOR	0.01 μ F,50V				
C235	QETC1CM-476	E CAPACITOR	47 μ F,16V	△ TH201	ERT-D2FHL102S	THERMISTOR	
C236	QCYA1HK-103	CAPACITOR	0.01 μ F,50V	△ TH202	ERT-D2FHL102S	THERMISTOR	
C237	QETC1CM-476	E CAPACITOR	47 μ F,16V				
C239	QETC1CM-226	E CAPACITOR	22 μ F,16V	△ T201	PGZ01859	TRANS, × 2(T201,T202)	
C240	QETC1CM-226	E CAPACITOR	22 μ F,16V				

#	△ REF No.	PART No.	PART NAME, DESCRIPTION
	TP1	SQMX001-001Z	TEST PIN, × 10
	CN1	PU59555-3	CONNECTOR
	CN2	PU59555-3	CONNECTOR
	CN3	PU59973-18	CONNECTOR
	CN4	PU59973-30	CONNECTOR
	CN5	PU59973-30	CONNECTOR
	CN201	PU59555-4	CONNECTOR
N. AUDIO BOARD ASSEMBLY, BR-S500 <22>			
	PWBA	PRK10140B-07	NORMAL AUDIO BOARD ASSY
	IC1	M5220P	IC
	IC2	M5220P	IC
	IC3	M51132L	IC
	IC4	M51132L	IC
	IC5	CXA1101P	IC
	IC301	TC4066BP	IC
	IC302	M5218AP	IC
	IC303	UPC393C	IC
	Q2	DTC124EK	TRANSISTOR
	Q4	DTC323TK	TRANSISTOR
	Q9	DTC323TK	TRANSISTOR
	Q10	DTC323TK	TRANSISTOR
	Q11	2SD973AR	TRANSISTOR
	Q12	2SD973AR	TRANSISTOR
	Q13	DTA124EK	TRANSISTOR
	Q14	DTA124EK	TRANSISTOR
	Q15	DTC124EK	TRANSISTOR
	Q16	DTC124EK	TRANSISTOR
	Q301	2SD973AR	TRANSISTOR
	Q302	2SC2412K	TRANSISTOR
	R1	QRSA08J-273YN	RESISTOR 27kΩ, 1/10W
	R2	QRSA08J-393YN	RESISTOR 39kΩ, 1/10W
	R3	QRSA08J-473YN	RESISTOR 47kΩ, 1/10W
	R4	QRSA08J-473YN	RESISTOR 47kΩ, 1/10W
	R5	QRSA08J-103YN	RESISTOR 10kΩ, 1/10W
	R6	QRSA08J-103YN	RESISTOR 10kΩ, 1/10W
	R9	QRSA08J-155YN	RESISTOR 1.5MΩ, 1/10W
	R10	QRSA08J-155YN	RESISTOR 1.5MΩ, 1/10W
	R11	QRSA08J-0R0Y	RESISTOR 0Ω, 1/10W
	R12	QRSA08J-0R0Y	RESISTOR 0Ω, 1/10W
	R13	QRSA08J-432YN	RESISTOR 4.3kΩ, 1/10W
	R14	QRSA08J-432YN	RESISTOR 4.3kΩ, 1/10W
	R15	QRSA08J-124YN	RESISTOR 120kΩ, 1/10W
	R16	QRSA08J-124YN	RESISTOR 120kΩ, 1/10W
	R17	QRSA08J-101YN	RESISTOR 100Ω, 1/10W

#	△ REF No.	PART No.	PART NAME, DESCRIPTION
	R18	QRSA08J-101YN	RESISTOR 100Ω, 1/10W
	R19	QRSA08J-123YN	RESISTOR 12kΩ, 1/10W
	R20	QRSA08J-123YN	RESISTOR 12kΩ, 1/10W
	R23	QRSA08J-823YN	RESISTOR 82kΩ, 1/10W
	R24	QRSA08J-823YN	RESISTOR 82kΩ, 1/10W
	R25	QRSA08J-823YN	RESISTOR 82kΩ, 1/10W
	R26	QRSA08J-823YN	RESISTOR 82kΩ, 1/10W
	R29	QRSA08J-473YN	RESISTOR 47kΩ, 1/10W
	R30	QRSA08J-473YN	RESISTOR 47kΩ, 1/10W
	R31	QRSA08J-473YN	RESISTOR 47kΩ, 1/10W
	R32	QRSA08J-473YN	RESISTOR 47kΩ, 1/10W
	R33	QRSA08J-473YN	RESISTOR 47kΩ, 1/10W
	R34	QRSA08J-473YN	RESISTOR 47kΩ, 1/10W
	R35	QRSA08J-473YN	RESISTOR 47kΩ, 1/10W
	R36	QRSA08J-473YN	RESISTOR 47kΩ, 1/10W
	R37	QRSA08J-272YN	RESISTOR 2.7kΩ, 1/10W
	R38	QRSA08J-272YN	RESISTOR 2.7kΩ, 1/10W
	R39	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W
	R40	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W
	R41	QRSA08J-202YN	RESISTOR 2kΩ, 1/10W
	R42	QRSA08J-202YN	RESISTOR 2kΩ, 1/10W
	R43	QRSA08J-122YN	RESISTOR 1.2kΩ, 1/10W
	R44	QRSA08J-122YN	RESISTOR 1.2kΩ, 1/10W
	R45	QRSA08J-433YN	RESISTOR 43kΩ, 1/10W
	R46	QRSA08J-823YN	RESISTOR 82kΩ, 1/10W
	R47	QRSA08J-823YN	RESISTOR 82kΩ, 1/10W
	R48	QRSA08J-222YN	RESISTOR 2.2kΩ, 1/10W
	R51	QRSA08J-103YN	RESISTOR 10kΩ, 1/10W
	R55	QRSA08J-124YN	RESISTOR 120kΩ, 1/10W
	R56	QRSA08J-124YN	RESISTOR 120kΩ, 1/10W
	R57	QRSA08J-123YN	RESISTOR 12kΩ, 1/10W
	R58	QRSA08J-123YN	RESISTOR 12kΩ, 1/10W
	R59	QRSA08J-104YN	RESISTOR 100kΩ, 1/10W
	R60	QRSA08J-104YN	RESISTOR 100kΩ, 1/10W
	R61	QRSA08J-222YN	RESISTOR 2.2kΩ, 1/10W
	R63	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W
	R64	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W
	R65	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W
	R66	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W
	R301	QRSA08J-823YN	RESISTOR 82kΩ, 1/10W
	R302	QRSA08J-823YN	RESISTOR 82kΩ, 1/10W
	R303	QRSA08J-823YN	RESISTOR 82kΩ, 1/10W
	R304	QRSA08J-184YN	RESISTOR 180kΩ, 1/10W
	R305	QRSA08J-563YN	RESISTOR 56kΩ, 1/10W
	R306	QRSA08J-333YN	RESISTOR 33kΩ, 1/10W
	R307	QRSA08J-823YN	RESISTOR 82kΩ, 1/10W
	R308	QRSA08J-122YN	RESISTOR 1.2kΩ, 1/10W
	R309	QRSA08J-685YN	RESISTOR 6.8kΩ, 1/10W
	R310	QRSA08J-101YN	RESISTOR 100Ω, 1/10W
	R311	QRSA08J-473YN	RESISTOR 47kΩ, 1/10W
	R312	QRSA08J-103YN	RESISTOR 10kΩ, 1/10W
	R313	QRSA08J-182YN	RESISTOR 1.8kΩ, 1/10W
	R314	QRSA08J-472YN	RESISTOR 4.7kΩ, 1/10W
	R315	QRSA08J-472YN	RESISTOR 4.7kΩ, 1/10W
	R316	QRSA08J-184YN	RESISTOR 180kΩ, 1/10W
	R317	QRSA08J-682YN	RESISTOR 6.8kΩ, 1/10W

#△REF No.	PART No.	PART NAME, DESCRIPTION		#△REF No.	PART No.	PART NAME, DESCRIPTION	
R318	QRSA08J-474YN	RESISTOR	470kΩ,1/10W	C44	QETC1CM-107ZE	E CAPACITOR	100 μ F,16V
R319	QRSA08J-103YN	RESISTOR	10kΩ,1/10W	C45	QCYA1HK-103	CAPACITOR	0.01 μ F,50V
R320	QRSA08J-104YN	RESISTOR	100kΩ,1/10W	C46	QETC1CM-476ZE	E CAPACITOR	47 μ F,16V
				C47	QETC1CM-107ZE	E CAPACITOR	100 μ F,16V
R321	QRSA08J-682YN	RESISTOR	6.8kΩ,1/10W	C48	QETC1CM-107ZE	E CAPACITOR	100 μ F,16V
R322	QRSA08J-223YN	RESISTOR	22kΩ,1/10W	C49	QCYA1HK-103	CAPACITOR	0.01 μ F,50V
R323	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W	C50	QETC1CM-476ZE	E CAPACITOR	47 μ F,16V
R324	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W				
R325	QRSA08J-103YN	RESISTOR	10kΩ,1/10W	C53	QENC1CM-106ZE	E CAPACITOR	10 μ F,16V
R326	QRSA08J-103YN	RESISTOR	10kΩ,1/10W	C54	QENC1CM-106ZE	E CAPACITOR	10 μ F,16V
R327	QRSA08J-561YN	RESISTOR	560Ω,1/10W	C55	QETC1CM-106	E CAPACITOR	10 μ F,16V
R328	QRSA08J-103YN	RESISTOR	10kΩ,1/10W	C56	QETC1CM-106	E CAPACITOR	10 μ F,16V
R329	QRSA08J-750YN	RESISTOR	75Ω,1/10W	C57	QETC1CM-106	E CAPACITOR	10 μ F,16V
R330	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W	C58	QETC1CM-106	E CAPACITOR	10 μ F,16V
				C59	QETC1CM-476	E CAPACITOR	47 μ F,16V
R332	QRSA08J-104YN	RESISTOR	100kΩ,1/10W				
				C61	QETC1CM-107	E CAPACITOR	100 μ F,16V
C1	QCSA1HJ-122	CAPACITOR	0.0012 μ F,50V	C62	QETC1CM-107	E CAPACITOR	100 μ F,16V
C2	QCSA1HJ-122	CAPACITOR	0.0012 μ F,50V	C63	QCTA1CH-101	CAPACITOR	100pF,16V
C5	QEBC1HM-105	E CAPACITOR	1 μ F,50V	C64	QCTA1CH-101	CAPACITOR	100pF,16V
C6	QEBC1HM-105	E CAPACITOR	1 μ F,50V				
C7	QCTA1CH-101	CAPACITOR	100pF,16V	C301	QFN31HJ-153	M CAPACITOR	0.015 μ F,50V
C8	QCTA1CH-101	CAPACITOR	100pF,16V	C302	QETC1CM-227ZE	E CAPACITOR	220 μ F,16V
C9	QFN31HJ-273	M CAPACITOR	0.027 μ F,50V	C303	QEBC1EM-475	E CAPACITOR	4.7 μ F,25V
C10	QFN31HJ-273	M CAPACITOR	0.027 μ F,50V	C304	QENC1CM-106	NP E CAPACITOR	10 μ F,16V
				C305	QETC1CM-226	E CAPACITOR	22 μ F,16V
C11	QETC1CM-107ZE	E CAPACITOR	100 μ F,16V	C306	QENC1EM-475	NP E CAPACITOR	4.7 μ F,25V
C12	QETC1CM-107ZE	E CAPACITOR	100 μ F,16V	C307	QETC1CM-106	E CAPACITOR	10 μ F,16V
C13	QETC1CM-476ZE	E CAPACITOR	47 μ F,16V	C308	QENC1EM-475	NP E CAPACITOR	4.7 μ F,25V
C14	QETC1CM-476ZE	E CAPACITOR	47 μ F,16V	C309	QETC1CM-227	E CAPACITOR	220 μ F,16V
C15	QENC1CM-106	NP E CAPACITOR	10 μ F,16V	C310	QETC1CM-107	E CAPACITOR	100 μ F,16V
C16	QENC1CM-106	NP E CAPACITOR	10 μ F,16V				
C17	QCYA1HK-103	CAPACITOR	0.01 μ F,50V	C311	QCYA1HK-103	CAPACITOR	0.01 μ F,50V
C18	QCYA1HK-103	CAPACITOR	0.01 μ F,50V	C312	QETC1CM-107	E CAPACITOR	100 μ F,16V
C19	QETC1CM-107ZE	E CAPACITOR	100 μ F,16V	C313	QETC1CM-476	E CAPACITOR	47 μ F,16V
C20	QETC1CM-107ZE	E CAPACITOR	100 μ F,16V	C314	QCYA1HK-103	CAPACITOR	0.01 μ F,50V
				C315	QETC1CM-107ZE	E CAPACITOR	100 μ F,16V
C21	QETC1CM-476ZE	E CAPACITOR	47 μ F,16V	C316	QCYA1HK-103	CAPACITOR	0.01 μ F,50V
C22	QETC1CM-476ZE	E CAPACITOR	47 μ F,16V	C317	QETC1CM-476ZE	E CAPACITOR	47 μ F,16V
C23	QETC1CM-226ZE	E CAPACITOR	22 μ F,16V	C318	QETC1CM-107ZE	E CAPACITOR	100 μ F,16V
C24	QETC1CM-226ZE	E CAPACITOR	22 μ F,16V	C319	QCTA1CH-101	CAPACITOR	100pF,16V
C25	QETC1EM-475ZE	E CAPACITOR	4.7 μ F,25V				
C26	QETC1EM-475ZE	E CAPACITOR	4.7 μ F,25V	L1	PU48530-271J	COIL, × 2(L1, L2, L301)	270 μ H
C27	QFN31HJ-682	M CAPACITOR	0.0068 μ F,50V				
C28	QFN31HJ-682	M CAPACITOR	0.0068 μ F,50V	LPF1	PU60206	LOW PASS FILTER	
C29	QENC1EM-475	NP E CAPACITOR	4.7 μ F,25V	LPF2	PU60206	LOW PASS FILTER	
C30	QENC1EM-475	NP E CAPACITOR	4.7 μ F,25V				
C31	QENC1EM-475ZE	E CAPACITOR	4.7 μ F,25V	TH1	ERT-D2FHL462S	THERMISTOR	
C32	QENC1EM-475ZE	E CAPACITOR	4.7 μ F,25V	TH2	ERT-D2FHL462S	THERMISTOR	
C33	QETC1CM-106ZE	E CAPACITOR	10 μ F,16V				
C34	QETC1CM-106ZE	E CAPACITOR	10 μ F,16V	TP1	SQMX001-001Z	TEST PIN, × 5	
C35	QFN31HJ-822	M CAPACITOR	0.0082 μ F,50V				
C36	QFN31HJ-822	M CAPACITOR	0.0082 μ F,50V	CN1	PU59555-3	CONNECTOR	
C37	QETC1HM-105ZE	E CAPACITOR	1 μ F,50V	CN2	PU59555-3	CONNECTOR	
C38	QETC1HM-105ZE	E CAPACITOR	1 μ F,50V	CN4	PU59973-30	CONNECTOR	
C39	NEE21VM-684RY	TANTAL CAPACITOR	0.68 μ F,35V	CN5	PU59973-30	CONNECTOR	
C40	NEE21VM-684RY	TANTAL CAPACITOR	0.68 μ F,35V				
C41	QCYA1HK-103	CAPACITOR	0.01 μ F,50V				
C42	QCYA1HK-103	CAPACITOR	0.01 μ F,50V				
C43	QETC1CM-107ZE	E CAPACITOR	100 μ F,16V				

#△ REF No. PART No. PART NAME, DESCRIPTION

AV I/O BOARD ASSEMBLY <23>

PWBA PRK20267A-01 AV I/O BOARD ASSY, BR-S800
 PWBA PRK20267B-01 AV I/O BOARD ASSY, BR-S500

IC1 TC4053BF IC
 IC2 M5218AFP-XE1 IC
 IC3 M5201FP IC
 IC4 M5201FP IC
 IC5 TC4052BF IC
 IC6 M5218AFP-XE1 IC
 IC7 M50253P IC
 IC8 M5218AFP-XE1 IC
 IC9 M5218AFP-XE1 IC

IC51 M5201FP IC, BR-S800
 IC52 M5201FP IC, BR-S800
 IC53 M5201FP IC, BR-S800
 IC54 M5201FP IC, BR-S800
 IC55 M5201FP IC, BR-S800

IC201 M52684AP IC
 IC202 M35010-089SP IC

IC301 MM1117XF IC
 IC302 AN607P IC
 IC303 SN16913P IC
 IC304 TC74HC4538AF IC
 IC305 AN607P IC
 IC306 SN16913P IC
 IC307 UPC319G2 IC
 IC308 TC74HC04AF IC
 IC309 MM1111XF IC

Q1 2SD973AR TRANSISTOR
 Q2 2SA1037K TRANSISTOR
 Q3 DTA124EK TRANSISTOR
 Q4 DTC323TK TRANSISTOR
 Q5 DTC323TK TRANSISTOR
 Q6 DTC323TK TRANSISTOR
 Q7 DTC323TK TRANSISTOR
 Q8 DTC323TK TRANSISTOR
 Q9 DTC323TK TRANSISTOR
 Q10 DTC323TK TRANSISTOR

Q11 2SC2412K TRANSISTOR
 Q12 2SC2412K TRANSISTOR
 Q13 DTA124EK TRANSISTOR
 Q14 DTC323TK TRANSISTOR
 Q15 DTC323TK TRANSISTOR

Q201 2SC2778(C) TRANSISTOR
 Q202 2SC2778(C) TRANSISTOR
 Q203 2SA1022(C) TRANSISTOR
 Q204 2SA1022(C) TRANSISTOR
 Q205 2SC2778(C) TRANSISTOR
 Q206 2SC2778(C) TRANSISTOR
 Q207 2SC2778(C) TRANSISTOR

#△ REF No. PART No. PART NAME, DESCRIPTION

Q208 2SD601A(Q) TRANSISTOR
 Q209 2SD601A(Q) TRANSISTOR
 Q210 DTC144EK TRANSISTOR

Q301 2SA1037K(QR) TRANSISTOR
 Q302 2SA1037K(QR) TRANSISTOR
 Q303 2SC2412K(RS) TRANSISTOR
 Q304 2SA1037K(QR) TRANSISTOR
 Q305 2SC2412K(RS) TRANSISTOR
 Q306 2SK621 FE TRANSISTOR
 Q307 2SK621 FE TRANSISTOR
 Q308 2SC2412K(RS) TRANSISTOR
 Q309 2SC2412K(RS) TRANSISTOR
 Q310 2SC2412K(RS) TRANSISTOR

Q311 2SK621 FE TRANSISTOR
 Q312 2SC2412K(RS) TRANSISTOR
 Q313 2SC2412K(RS) TRANSISTOR
 Q314 2SC2412K(RS) TRANSISTOR
 Q315 2SA1037K(QR) TRANSISTOR
 Q316 2SC2412K(RS) TRANSISTOR
 Q317 2SK621 FE TRANSISTOR
 Q318 2SK621 FE TRANSISTOR
 Q319 2SC2412K(RS) TRANSISTOR
 Q320 2SC2412K(RS) TRANSISTOR

Q321 2SK621 FE TRANSISTOR
 Q322 2SC2412K(RS) TRANSISTOR
 Q323 2SC2412K(RS) TRANSISTOR
 Q324 2SC2412K(RS) TRANSISTOR
 Q325 2SC2412K(RS) TRANSISTOR
 Q326 DTC144EK TRANSISTOR
 Q327 DTC144EK TRANSISTOR

D1 DAN202K DIODE
 D2 DAN202K DIODE
 D3 DAN202K DIODE
 D4 DAN202K DIODE

D201 DAN202K DIODE
 D202 DAN202K DIODE

D301 DAN202K DIODE
 D302 DAN202K DIODE
 D303 DAN202K DIODE
 D304 DAN202K DIODE
 D305 DAN202K DIODE

R1 QRSA08J-102YN RESISTOR 1kΩ, 1/10W
 R2 QRSA08J-102YN RESISTOR 1kΩ, 1/10W
 R3 QRSA08J-102YN RESISTOR 1kΩ, 1/10W
 R4 QRSA08J-102YN RESISTOR 1kΩ, 1/10W
 R5 QRSA08J-102YN RESISTOR 1kΩ, 1/10W
 R6 QRSA08J-102YN RESISTOR 1kΩ, 1/10W
 R7 QRSA08J-102YN RESISTOR 1kΩ, 1/10W
 R8 QRSA08J-102YN RESISTOR 1kΩ, 1/10W
 R9 QRSA08J-102YN RESISTOR 1kΩ, 1/10W
 R10 QRSA08J-102YN RESISTOR 1kΩ, 1/10W

R11 QRSA08J-823YN RESISTOR 82kΩ, 1/10W
 R12 QRSA08J-823YN RESISTOR 82kΩ, 1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	#△ REF No.	PART No.	PART NAME, DESCRIPTION
R13	QRSA08J-823YN	RESISTOR 82kΩ, 1/10W	R71	QVPC625-102Z	V RESISTOR 1kΩ
R14	QRSA08J-823YN	RESISTOR 82kΩ, 1/10W	R72	QVPC625-102Z	V RESISTOR 1kΩ
R15	QRSA08J-682YN	RESISTOR 6.8kΩ, 1/10W	R73	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W
R16	QRSA08J-682YN	RESISTOR 6.8kΩ, 1/10W	R74	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W
R17	QRSA08J-682YN	RESISTOR 6.8kΩ, 1/10W	R75	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W
R18	QRSA08J-682YN	RESISTOR 6.8kΩ, 1/10W	R76	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W
R19	QRSA08J-154YN	RESISTOR 150kΩ, 1/10W			
R20	QRSA08J-154YN	RESISTOR 150kΩ, 1/10W	R101	QRSA08J-392YN	RESISTOR, BR-S800 3.9kΩ, 1/10W
			R102	QRSA08J-392YN	RESISTOR, BR-S800 3.9kΩ, 1/10W
R21	QRSA08J-154YN	RESISTOR 150kΩ, 1/10W	R103	QRSA08J-392YN	RESISTOR, BR-S800 3.9kΩ, 1/10W
R22	QRSA08J-154YN	RESISTOR 150kΩ, 1/10W	R104	QRSA08J-392YN	RESISTOR, BR-S800 3.9kΩ, 1/10W
R23	QRSA08J-154YN	RESISTOR 150kΩ, 1/10W	R105	QRSA08J-102YN	RESISTOR, BR-S800 1kΩ, 1/10W
R24	QRSA08J-154YN	RESISTOR 150kΩ, 1/10W	R106	QRSA08J-102YN	RESISTOR, BR-S800 1kΩ, 1/10W
R25	QRSA08J-154YN	RESISTOR 150kΩ, 1/10W	R107	QRSA08J-102YN	RESISTOR, BR-S800 1kΩ, 1/10W
R26	QRSA08J-154YN	RESISTOR 150kΩ, 1/10W	R108	QRSA08J-102YN	RESISTOR, BR-S800 1kΩ, 1/10W
R27	QRSA08J-682YN	RESISTOR 6.8kΩ, 1/10W	R109	QRSA08J-102YN	RESISTOR, BR-S800 1kΩ, 1/10W
R28	QRSA08J-682YN	RESISTOR 6.8kΩ, 1/10W	R110	QRSA08J-102YN	RESISTOR, BR-S800 1kΩ, 1/10W
R29	QRSA08J-682YN	RESISTOR 6.8kΩ, 1/10W			
R30	QRSA08J-682YN	RESISTOR 6.8kΩ, 1/10W	R111	QRSA08J-102YN	RESISTOR, BR-S800 1kΩ, 1/10W
			R112	QRSA08J-102YN	RESISTOR, BR-S800 1kΩ, 1/10W
R31	QRSA08J-823YN	RESISTOR 82kΩ, 1/10W	R113	QRSA08J-682YN	RESISTOR, BR-S800 6.8kΩ, 1/10W
R32	QRSA08J-823YN	RESISTOR 82kΩ, 1/10W	R114	QRSA08J-682YN	RESISTOR, BR-S800 6.8kΩ, 1/10W
R33	QRSA08J-393YN	RESISTOR 39kΩ, 1/10W	R115	QRSA08J-682YN	RESISTOR, BR-S800 6.8kΩ, 1/10W
R34	QRSA08J-393YN	RESISTOR 39kΩ, 1/10W	R116	QRSA08J-682YN	RESISTOR, BR-S800 6.8kΩ, 1/10W
R35	QRSA08J-393YN	RESISTOR 39kΩ, 1/10W	R117	QRSA08J-682YN	RESISTOR, BR-S800 6.8kΩ, 1/10W
R36	QRSA08J-223YN	RESISTOR 22kΩ, 1/10W	R118	QRSA08J-682YN	RESISTOR, BR-S800 6.8kΩ, 1/10W
R37	QRSA08J-393YN	RESISTOR 39kΩ, 1/10W	R119	QRSA08J-682YN	RESISTOR, BR-S800 6.8kΩ, 1/10W
R38	QRSA08J-433YN	RESISTOR 43kΩ, 1/10W	R120	QRSA08J-682YN	RESISTOR, BR-S800 6.8kΩ, 1/10W
R39	QRSA08J-393YN	RESISTOR 39kΩ, 1/10W			
R40	QRSA08J-392YN	RESISTOR 3.9kΩ, 1/10W	R121	QRSA08J-154YN	RESISTOR, BR-S800 150kΩ, 1/10W
			R122	QRSA08J-154YN	RESISTOR, BR-S800 150kΩ, 1/10W
R41	QRSA08J-392YN	RESISTOR 3.9kΩ, 1/10W	R123	QRSA08J-154YN	RESISTOR, BR-S800 150kΩ, 1/10W
R42	QRSA08J-823YN	RESISTOR 82kΩ, 1/10W	R124	QRSA08J-154YN	RESISTOR, BR-S800 150kΩ, 1/10W
R43	QRSA08J-823YN	RESISTOR 82kΩ, 1/10W	R125	QRSA08J-102YN	RESISTOR, BR-S800 1kΩ, 1/10W
R44	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W	R126	QRSA08J-102YN	RESISTOR, BR-S800 1kΩ, 1/10W
R45	QRSA08J-823YN	RESISTOR 82kΩ, 1/10W	R127	QRSA08J-392YN	RESISTOR, BR-S800 3.9kΩ, 1/10W
R46	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W	R128	QRSA08J-392YN	RESISTOR, BR-S800 3.9kΩ, 1/10W
R47	QRSA08J-103YN	RESISTOR 10kΩ, 1/10W	R129	QRSA08J-223YN	RESISTOR, BR-S800 22kΩ, 1/10W
R48	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W	R130	QRSA08J-223YN	RESISTOR, BR-S800 22kΩ, 1/10W
R49	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W			
R50	QRSA08J-223YN	RESISTOR 22kΩ, 1/10W	R131	QRSA08J-223YN	RESISTOR, BR-S800 22kΩ, 1/10W
			R132	QRSA08J-154YN	RESISTOR, BR-S800 150kΩ, 1/10W
R51	QRSA08J-392YN	RESISTOR 3.9kΩ, 1/10W			
R52	QRSA08J-392YN	RESISTOR 3.9kΩ, 1/10W	R201	QRSA08J-223YN	RESISTOR 22kΩ, 1/10W
R53	QRSA08J-393YN	RESISTOR 39kΩ, 1/10W	R202	QRSA08J-153YN	RESISTOR 15kΩ, 1/10W
R54	QRSA08J-393YN	RESISTOR 39kΩ, 1/10W	R203	QRSA08J-102YN	RESISTOR 1kΩ, 1/10W
R55	QRSA08J-393YN	RESISTOR 39kΩ, 1/10W	R204	QRSA08J-222YN	RESISTOR 2.2kΩ, 1/10W
R56	QRSA08J-393YN	RESISTOR 39kΩ, 1/10W	R205	QRSA08J-272YN	RESISTOR 2.7kΩ, 1/10W
R57	QRSA08J-393YN	RESISTOR 39kΩ, 1/10W	R206	QRSA08J-0R0Y	RESISTOR 0Ω, 1/10W
R58	QRSA08J-393YN	RESISTOR 39kΩ, 1/10W	R207	QRSA08J-221YN	RESISTOR 220Ω, 1/10W
R59	QRSA08J-471YN	RESISTOR 470Ω, 1/10W	R208	QRSA08J-392YN	RESISTOR 3.9kΩ, 1/10W
R60	QRSA08J-471YN	RESISTOR 470Ω, 1/10W	R209	QRSA08J-682YN	RESISTOR 6.8kΩ, 1/10W
			R210	QRSA08J-152YN	RESISTOR 1.5kΩ, 1/10W
R61	QRSA08J-152YN	RESISTOR 1.5kΩ, 1/10W			
R62	QRSA08J-152YN	RESISTOR 1.5kΩ, 1/10W	R211	QRSA08J-103YN	RESISTOR 10kΩ, 1/10W
R63	QRSA08J-103YN	RESISTOR 10kΩ, 1/10W	R212	QRSA08J-561YN	RESISTOR 560Ω, 1/10W
R64	QRSA08J-103YN	RESISTOR 10kΩ, 1/10W	R213	QRSA08J-182YN	RESISTOR 1.8kΩ, 1/10W
R65	QRSA08J-223YN	RESISTOR 22kΩ, 1/10W	R214	QRSA08J-154YN	RESISTOR 150kΩ, 1/10W
R66	QRSA08J-223YN	RESISTOR 22kΩ, 1/10W	R215	QRSA08J-333YN	RESISTOR 33kΩ, 1/10W
R67	QRSA08J-821YN	RESISTOR 820Ω, 1/10W	R216	QRSA08J-333YN	RESISTOR 33kΩ, 1/10W
R68	QRSA08J-821YN	RESISTOR 820Ω, 1/10W	R217	QRSA08J-222YN	RESISTOR 2.2kΩ, 1/10W
R69	QRSA08J-181YN	RESISTOR 180Ω, 1/10W	R218	QRG129J-820	OMF RESISTOR 82Ω, 1/2W
R70	QRSA08J-181YN	RESISTOR 180Ω, 1/10W	R219	QRSA08J-330YN	RESISTOR 33Ω, 1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
R220	QRSA08J-123 YN	RESISTOR	12kΩ, 1/10W
R221	QRSA08J-222 YN	RESISTOR	2.2kΩ, 1/10W
R222	QRSA08J-102 YN	RESISTOR	1kΩ, 1/10W
R223	QRSA08J-750 YN	RESISTOR	75Ω, 1/10W
R224	QRSA08J-271 YN	RESISTOR	270Ω, 1/10W
R225	QRSA08J-103 YN	RESISTOR	10kΩ, 1/10W
R226	QRSA08J-393 YN	RESISTOR	39kΩ, 1/10W
R227	QRSA08J-152 YN	RESISTOR	1.5kΩ, 1/10W
R228	QRSA08J-101 YN	RESISTOR	100Ω, 1/10W
R229	QRSA08J-681 YN	RESISTOR	680Ω, 1/10W
R230	QRSA08J-183 YN	RESISTOR	18kΩ, 1/10W
R231	QRSA08J-102 YN	RESISTOR	1kΩ, 1/10W
R232	QRSA08J-154 YN	RESISTOR	150kΩ, 1/10W
R233	QRSA08J-0R0 Y	RESISTOR	0Ω, 1/10W
R234	QRSA08J-472 YN	RESISTOR	4.7kΩ, 1/10W
R235	QRSA08J-222 YN	RESISTOR	2.2kΩ, 1/10W
R236	QRSA08J-103 YN	RESISTOR	10kΩ, 1/10W
R237	QRSA08J-102 YN	RESISTOR	1kΩ, 1/10W
R238	QRSA08J-221 YN	RESISTOR	220Ω, 1/10W
R239	QRSA08J-102 YN	RESISTOR	1kΩ, 1/10W
R240	QRSA08J-102 YN	RESISTOR	1kΩ, 1/10W
R241	QRSA08J-102 YN	RESISTOR	1kΩ, 1/10W
R242	QRSA08J-102 YN	RESISTOR	1kΩ, 1/10W
R243	QRSA08J-471 YN	RESISTOR	470Ω, 1/10W
R301	QRSA08J-152 YN	RESISTOR	1.5kΩ, 1/10W
R302	QRSA08J-104 YN	RESISTOR	100kΩ, 1/10W
R303	QRSA08J-104 YN	RESISTOR	100kΩ, 1/10W
R304	QRSA08J-272 YN	RESISTOR	2.7kΩ, 1/10W
R305	QRSA08J-222 YN	RESISTOR	2.2kΩ, 1/10W
R306	QRSA08J-272 YN	RESISTOR	2.7kΩ, 1/10W
R307	QRSA08J-272 YN	RESISTOR	2.7kΩ, 1/10W
R308	QRSA08J-333 YN	RESISTOR	33kΩ, 1/10W
R309	QRSA08J-273 YN	RESISTOR	27kΩ, 1/10W
R310	QRSA08J-103 YN	RESISTOR	10kΩ, 1/10W
R311	QRSA08J-333 YN	RESISTOR	33kΩ, 1/10W
R312	QRSA08J-102 YN	RESISTOR	1kΩ, 1/10W
R313	QRSA08J-222 YN	RESISTOR	2.2kΩ, 1/10W
R314	QRSA08J-182 YN	RESISTOR	1.8kΩ, 1/10W
R315	QRSA08J-561 YN	RESISTOR	560Ω, 1/10W
R316	QRSA08J-272 YN	RESISTOR	2.7kΩ, 1/10W
R317	QRSA08J-103 YN	RESISTOR	10kΩ, 1/10W
R318	QRSA08J-103 YN	RESISTOR	10kΩ, 1/10W
R319	QRSA08J-152 YN	RESISTOR	1.5kΩ, 1/10W
R320	QRSA08J-102 YN	RESISTOR	1kΩ, 1/10W
R321	QRSA08J-102 YN	RESISTOR	1kΩ, 1/10W
R322	QRSA08J-333 YN	RESISTOR	33kΩ, 1/10W
R323	QRSA08J-103 YN	RESISTOR	10kΩ, 1/10W
R324	QRSA08J-272 YN	RESISTOR	2.7kΩ, 1/10W
R325	QRSA08J-122 YN	RESISTOR	1.2kΩ, 1/10W
R326	QRSA08J-101 YN	RESISTOR	100Ω, 1/10W
R327	QRSA08J-471 YN	RESISTOR	470Ω, 1/10W
R328	QRSA08J-561 YN	RESISTOR	560Ω, 1/10W
R329	QRSA08J-561 YN	RESISTOR	560Ω, 1/10W
R330	QRSA08J-561 YN	RESISTOR	560Ω, 1/10W
R331	QRSA08J-392 YN	RESISTOR	3.9kΩ, 1/10W
R332	QRSA08J-152 YN	RESISTOR	1.5kΩ, 1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
R333	QRSA08J-103 YN	RESISTOR	10kΩ, 1/10W
R334	QRSA08J-223 YN	RESISTOR	22kΩ, 1/10W
R335	QRSA08J-152 YN	RESISTOR	1.5kΩ, 1/10W
R336	QRSA08J-222 YN	RESISTOR	2.2kΩ, 1/10W
R337	QRSA08J-102 YN	RESISTOR	1kΩ, 1/10W
R338	QRSA08J-103 YN	RESISTOR	10kΩ, 1/10W
R339	QRSA08J-333 YN	RESISTOR	33kΩ, 1/10W
R340	QRSA08J-102 YN	RESISTOR	1kΩ, 1/10W
R341	QRSA08J-222 YN	RESISTOR	2.2kΩ, 1/10W
R342	QRSA08J-182 YN	RESISTOR	1.8kΩ, 1/10W
R343	QRSA08J-561 YN	RESISTOR	560Ω, 1/10W
R344	QRSA08J-272 YN	RESISTOR	2.7kΩ, 1/10W
R345	QRSA08J-392 YN	RESISTOR	3.9kΩ, 1/10W
R346	QRSA08J-472 YN	RESISTOR	4.7kΩ, 1/10W
R347	QRSA08J-333 YN	RESISTOR	33kΩ, 1/10W
R348	QRSA08J-183 YN	RESISTOR	18kΩ, 1/10W
R349	QRSA08J-222 YN	RESISTOR	2.2kΩ, 1/10W
R350	QRSA08J-102 YN	RESISTOR	1kΩ, 1/10W
R351	QRSA08J-471 YN	RESISTOR	470Ω, 1/10W
R352	QRSA08J-561 YN	RESISTOR	560Ω, 1/10W
R353	QRSA08J-561 YN	RESISTOR	560Ω, 1/10W
R354	QRSA08J-561 YN	RESISTOR	560Ω, 1/10W
R355	QRSA08J-392 YN	RESISTOR	3.9kΩ, 1/10W
R356	QRSA08J-152 YN	RESISTOR	1.5kΩ, 1/10W
R357	QRSA08J-103 YN	RESISTOR	10kΩ, 1/10W
R358	QRSA08J-223 YN	RESISTOR	22kΩ, 1/10W
R359	QRSA08J-152 YN	RESISTOR	1.5kΩ, 1/10W
R360	QRSA08J-222 YN	RESISTOR	2.2kΩ, 1/10W
R361	QRSA08J-102 YN	RESISTOR	1kΩ, 1/10W
R362	QRSA08J-333 YN	RESISTOR	33kΩ, 1/10W
R363	QRSA08J-153 YN	RESISTOR	15kΩ, 1/10W
R364	QRSA08J-102 YN	RESISTOR	1kΩ, 1/10W
R365	QRSA08J-152 YN	RESISTOR	1.5kΩ, 1/10W
R366	QRSA08J-152 YN	RESISTOR	1.5kΩ, 1/10W
R367	QRSA08J-102 YN	RESISTOR	1kΩ, 1/10W
R368	QRSA08J-333 YN	RESISTOR	33kΩ, 1/10W
R369	QRSA08J-153 YN	RESISTOR	15kΩ, 1/10W
R370	QRSA08J-152 YN	RESISTOR	1.5kΩ, 1/10W
R371	QRSA08J-152 YN	RESISTOR	1.5kΩ, 1/10W
R372	QRSA08J-152 YN	RESISTOR	1.5kΩ, 1/10W
R373	QRSA08J-333 YN	RESISTOR	33kΩ, 1/10W
R374	QRSA08J-273 YN	RESISTOR	27kΩ, 1/10W
R375	QRSA08J-152 YN	RESISTOR	1.5kΩ, 1/10W
R376	QRSA08J-105 YN	RESISTOR	1MΩ, 1/10W
R377	QRSA08J-105 YN	RESISTOR	1MΩ, 1/10W
R378	QRSA08J-103 YN	RESISTOR	10kΩ, 1/10W
R379	QRSA08J-103 YN	RESISTOR	10kΩ, 1/10W
R380	QRSA08J-105 YN	RESISTOR	1MΩ, 1/10W
R381	QRSA08J-101 YN	RESISTOR	101Ω, 1/10W
R382	QRSA08J-101 YN	RESISTOR	101Ω, 1/10W
R383	QRSA08J-471 YN	RESISTOR	471Ω, 1/10W
C1	QER61CM-476	E CAPACITOR	47μF, 16V
C2	QER61CM-476	E CAPACITOR	47μF, 16V
C3	QEPC1CM-106	NP E CAPACITOR	10μF, 16V
C4	QEPC1CM-106	NP E CAPACITOR	10μF, 16V
C5	QER61CM-476	E CAPACITOR	47μF, 16V

#△ REF No.	PART No.	PART NAME, DESCRIPTION		#△ REF No.	PART No.	PART NAME, DESCRIPTION	
C6	QER61CM-476	E CAPACITOR	47 μ F,16V	C214	QCTA1CH-220	CAPACITOR	22pF,16V
C7	QER61CM-226	E CAPACITOR	22 μ F,16V	C215	QCYA1HK-152	CAPACITOR	0.0015 μ F,50V
C8	QER61CM-226	E CAPACITOR	22 μ F,16V	C216	QCYA1HK-222	CAPACITOR	0.0022 μ F,50V
C9	QEPC1CM-106	NP E CAPACITOR	10 μ F,16V	C217	QER61HM-105	E CAPACITOR	1 μ F,50V
C10	QEPC1CM-106	NP E CAPACITOR	10 μ F,16V	C218	QCYA1HK-103	CAPACITOR	0.01 μ F,50V
				C220	PU57672-500	TRIMMER CAPACITOR	50pF
C11	QEPC1CM-106	NP E CAPACITOR	10 μ F,16V	C221	QCTA1CH-150	CAPACITOR	15pF,16V
C12	QEPC1CM-106	NP E CAPACITOR	10 μ F,16V	C222	QCTA1CH-560	CAPACITOR	56pF,16V
C13	QER61CM-226	E CAPACITOR	22 μ F,16V	C223	QER61CM-476	E CAPACITOR	47 μ F,16V
C14	QER61CM-226	E CAPACITOR	22 μ F,16V	C224	QCYA1HK-223	CAPACITOR	0.022 μ F,50V
C15	QER61CM-226	E CAPACITOR	22 μ F,16V	C225	QCTA1CH-100	CAPACITOR	10pF,16V
C16	QER61CM-226	E CAPACITOR	22 μ F,16V	C226	PU57672-200	TRIMMER CAPACITOR	20pF
C17	QER61CM-476	E CAPACITOR	47 μ F,16V	C227	QER61CM-476	E CAPACITOR	47 μ F,16V
C18	QER61CM-476	E CAPACITOR	47 μ F,16V	C228	QCYA1HK-223	CAPACITOR	0.022 μ F,50V
C19	QER61CM-476	E CAPACITOR	47 μ F,16V	C229	QCYA1HK-103	CAPACITOR	0.01 μ F,50V
C20	QETC1CM-107	E CAPACITOR	100 μ F,16V	C230	QCTA1CH-101	CAPACITOR	100pF,16V
C21	QETC1CM-107	E CAPACITOR	100 μ F,16V	C232	QCTA1CH-101	CAPACITOR	100pF,16V
C22	QCYA1HK-103	CAPACITOR	0.01 μ F,50V	C233	QCTA1CH-220	CAPACITOR	22pF,16V
C23	QETC1CM-107	E CAPACITOR	100 μ F,16V	C301	QCYA1HK-103	CAPACITOR	0.01 μ F,50V
C24	QETC1CM-107	E CAPACITOR	100 μ F,16V	C302	QER61CM-476	E CAPACITOR	47 μ F,16V
C25	QER61CM-476	E CAPACITOR	47 μ F,16V	C303	QCYA1HK-103	CAPACITOR	0.01 μ F,50V
C26	QER61CM-226	E CAPACITOR	22 μ F,16V	C304	QEPC1CM-226	NP E CAPACITOR	22 μ F,16V
C27	QER61CM-476	E CAPACITOR	47 μ F,16V	C305	QER61CM-106	E CAPACITOR	10 μ F,16V
C28	QCYA1HK-103	CAPACITOR	0.01 μ F,50V	C306	QCYA1HK-103	CAPACITOR	0.01 μ F,50V
C29	QEPC1CM-106	NP E CAPACITOR	10 μ F,16V	C307	QER61EM-475	E CAPACITOR	4.7 μ F,25V
C30	QEPC1CM-106	NP E CAPACITOR	10 μ F,16V	C308	QER61CM-476	E CAPACITOR	47 μ F,16V
C31	QER61CM-226	E CAPACITOR	22 μ F,16V	C309	QER61CM-476	E CAPACITOR	47 μ F,16V
C32	QER61CM-226	E CAPACITOR	22 μ F,16V	C310	QER61EM-475	E CAPACITOR	4.7 μ F,25V
C33	QER61CM-106	E CAPACITOR	10 μ F,16V	C311	QER61EM-475	E CAPACITOR	4.7 μ F,25V
C34	QER61CM-106	E CAPACITOR	10 μ F,16V	C312	QCYA1HK-103	CAPACITOR	0.01 μ F,50V
C35	QER61CM-475	E CAPACITOR	4.7 μ F,16V	C313	QER61AM-476	E CAPACITOR	47 μ F,10V
C36	QER61CM-475	E CAPACITOR	4.7 μ F,16V	C314	QCYA1HK-103	CAPACITOR	0.01 μ F,50V
C37	QER61CM-476	E CAPACITOR	47 μ F,16V	C315	QER61AM-226	E CAPACITOR	22 μ F,10V
C38	QER61CM-476	E CAPACITOR	47 μ F,16V	C316	QCTA1CH-390	CAPACITOR	39pF,16V
C39	QCYA1HK-333	CAPACITOR	0.033 μ F,50V	C317	QCTA1CH-121	CAPACITOR	120pF,16V
C40	QCYA1HK-333	CAPACITOR	0.033 μ F,50V	C318	QEPC1HM-105	NP E CAPACITOR	1 μ F,50V
C51	QER61CM-106	E CAPACITOR, BR-S800	10 μ F,16V	C319	QCYA1HK-103	CAPACITOR	0.01 μ F,50V
C52	QER61CM-106	E CAPACITOR, BR-S800	10 μ F,16V	C320	QER61CM-106GZ	E CAPACITOR	10 μ F,16V
C53	QER61CM-106	E CAPACITOR, BR-S800	10 μ F,16V	C321	QCYA1HK-103	CAPACITOR	0.01 μ F,50V
C54	QER61CM-106	E CAPACITOR, BR-S800	10 μ F,16V	C322	QCYA1HK-223	CAPACITOR	0.022 μ F,50V
C55	QER61CM-476	E CAPACITOR, BR-S800	47 μ F,16V	C323	QCYA1HK-223	CAPACITOR	0.022 μ F,50V
C56	QER61CM-476	E CAPACITOR, BR-S800	47 μ F,16V	C324	QCYA1HK-103	CAPACITOR	0.01 μ F,50V
C57	QER61CM-476	E CAPACITOR, BR-S800	47 μ F,16V	C325	QCYA1HK-103	CAPACITOR	0.01 μ F,50V
C58	QER61CM-476	E CAPACITOR, BR-S800	47 μ F,16V	C326	QCYA1HK-103	CAPACITOR	0.01 μ F,50V
C59	QER61CM-476	E CAPACITOR, BR-S800	47 μ F,16V	C327	QCYA1HK-103	CAPACITOR	0.01 μ F,50V
C60	QEPC1CM-106	NP CAPACITOR, BR-S800	10 μ F,16V	C328	QCYA1HK-103	CAPACITOR	0.01 μ F,50V
C201	QER61CM-476	E CAPACITOR	47 μ F,16V	C329	QCYA1HK-103	CAPACITOR	0.01 μ F,50V
C202	QCYA1HK-223	CAPACITOR	0.022 μ F,50V	C330	QCYA1HK-103	CAPACITOR	0.01 μ F,50V
C203	QEK61CM-107	E CAPACITOR	100 μ F,16V	C331	QCYA1HK-103	CAPACITOR	0.01 μ F,50V
C205	QEPC1CM-106	NP E CAPACITOR	10 μ F,16V	C332	QCYA1HK-103	CAPACITOR	0.01 μ F,50V
C206	QCTA1CH-331	CAPACITOR	330pF,16V	C333	QCTA1CH-101	CAPACITOR	100pF,16V
C207	QETC1HM-335ZE	E CAPACITOR	3.3 μ F,50V	C334	QCYA1HK-103	CAPACITOR	0.01 μ F,50V
C208	QEK61CM-107	E CAPACITOR	100 μ F,16V	C335	QCYA1HK-103	CAPACITOR	0.01 μ F,50V
C209	QCTA1CH-101	CAPACITOR	100pF,16V	C336	QER61AM-476	E CAPACITOR	47 μ F,10V
C210	QER61CM-476	E CAPACITOR	47 μ F,16V	C337	QCYA1HK-223	CAPACITOR	0.022 μ F,50V
C211	PU54990-3	E CAPACITOR		C338	QEPC1CM-226	NP E CAPACITOR	22 μ F,16V
C212	QER61AM-227	E CAPACITOR	220 μ F,10V	C339	QCTA1CH-390	CAPACITOR	39pF,16V
C213	QCYA1HK-223	CAPACITOR	0.022 μ F,50V				

#	△ REF No.	PART No.	PART NAME, DESCRIPTION
	C340	QCTA1CH-121	CAPACITOR 120pF,16V
	C341	QEPC1HM-105	NP E CAPACITOR 1 μ F,50V
	C342	QCYA1HK-103	CAPACITOR 0.01 μ F,50V
	C343	QCYA1HK-103	CAPACITOR 0.01 μ F,50V
	C344	QCYA1HK-102	CAPACITOR 0.001 μ F,50V
	C345	QCYA1HK-102	CAPACITOR 0.001 μ F,50V
	C346	QCYA1HK-103	CAPACITOR 0.01 μ F,50V
	C347	QCYA1HK-103	CAPACITOR 0.01 μ F,50V
	C348	QCYA1HK-103	CAPACITOR 0.01 μ F,50V
	C349	QCYA1HK-103	CAPACITOR 0.01 μ F,50V
	C350	QCYA1HK-102	CAPACITOR 0.001 μ F,50V
	C351	QCYA1HK-103	CAPACITOR 0.01 μ F,50V
	C352	QCYA1HK-103	CAPACITOR 0.01 μ F,50V
	C353	QCYA1HK-103	CAPACITOR 0.01 μ F,50V
	C354	QCYA1HK-103	CAPACITOR 0.01 μ F,50V
	C355	QCYA1HK-103	CAPACITOR 0.01 μ F,50V
	C356	QCTA1CH-101	CAPACITOR 100pF,16V
	C357	QCFA1EZ-104	CAPACITOR 0.1 μ F,25V
	C358	QCFA1EZ-104	CAPACITOR 0.1 μ F,25V
	C359	QCYA1HK-103	CAPACITOR 0.01 μ F,50V
	C360	QER61CM-476	E CAPACITOR 47 μ F,16V
	C361	QCYA1HK-223	CAPACITOR 0.022 μ F,50V
	C362	QCYA1HK-103	CAPACITOR 0.01 μ F,50V
	C363	QCTA1CH-561	CAPACITOR 560pF,16V
	C364	QCTA1CH-561	CAPACITOR 560pF,16V
	C365	QCYA1HK-223	M CAPACITOR 0.022 μ F,50V
	L201	PU48530-221J	COIL 220 μ H
	L202	PU48530-221J	COIL 220 μ H
	L203	PU48530-221J	COIL 220 μ H
	L204	PU48530-220J	COIL 22 μ H
	L301	PU48530-221J	COIL 220 μ H
	L302	PU48530-221J	COIL 220 μ H
	L303	PU48530-221J	COIL 220 μ H
	L304	PU48530-100J	COIL 10 μ H
	L305	PU48530-100J	COIL 10 μ H
	L306	PU48530-221J	COIL 220 μ H
	L307	PU48530-221J	COIL 220 μ H
	L308	PU48530-100J	COIL 10 μ H
	L309	PU48530-100J	COIL 10 μ H
	BPF301	PELN0396	BAND PASS FILTER
	CF1	PU60086	CERAMIC FILTER
	DL301	PGZ01558	DELAY LINE, $\times 2$ (DL301, DL302)
△	X1	PGZ01700	CRYSTAL RESONATOR
	K201	PU60281-2Z	FERRITE BEADS
	K202	PU60281-2Z	FERRITE BEADS
	K203	PU60281-2Z	FERRITE BEADS
	K204	PU60281-2Z	FERRITE BEADS
	K205	PU60281-2Z	FERRITE BEADS

#	△ REF No.	PART No.	PART NAME, DESCRIPTION
	SLD1	PU36469	SHIELD CASE
	SLD2	PU60657	SHIELD COVER
	SPC1	PGZ01128-02	SPACER, $\times 2$
	TP1	SQMX001-001Z	TEST PIN, $\times 21$
	CN1	PGZ01937-44	MALE CONNECTOR
	CN2	PGZ01937-44	MALE CONNECTOR
SERVO/M-CTL BOARD ASSEMBLY <30>			
	PWBA	PRK10135B	M-CTL/R-SERVO BOARD ASSY
	STK1	PRD30072-83	STICKER
	STK2	PRD30072-84	STICKER
	STK3	PRD30072-85	STICKER
	IC1	UPD4053BG	IC
	IC2	UPD74HC04G	IC
	IC3	BA10393F	IC
	IC4	TC4W53F	IC
	IC5	UPD4030BG	IC
	IC6	UPD4066BG	IC
	IC7	UPD4066BG	IC
	IC8	NJM2068MD	IC
	IC9	BA10393F	IC
	IC10	NJM2068MD	IC
	IC11	BA10393F	IC
	IC12	BA10358F	IC
	IC13	UPD4013BG	IC
	IC14	SC78148GF-026	IC
	IC15	BR24C02F	IC
	IC16	UPD74HC573GS	IC
	IC17	UPD74HC138G	IC
	IC18	PGD30620C-14-2	IC
	IC21	UPD71055GB	IC
	IC22	NJM2068MD	IC
	IC23	NJM2068MD	IC
	IC24	BA10358F	IC
	IC25	BA10339F	IC
	IC26	BA10358F	IC
	IC28	BA10358F	IC
	IC31	M62354FP	IC
	IC32	NJM2068MD	IC
	IC33	TA8405S	IC
	IC34	BA10358F	IC
	IC35	BA10393F	IC
	IC36	TL431CLP	IC
	IC37	AN3834K	IC
	IC38	AN3834K	IC
	IC39	TC4S69F	IC

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
Q1	2SC241 2K(RS)	TRANSISTOR	
Q2	2SA1037K(QR)	TRANSISTOR	
Q3	2SC241 2K(RS)	TRANSISTOR	
Q4	2SK621	FE TRANSISTOR	
Q5	2SK621	FE TRANSISTOR	
Q6	2SC241 2K(QR)	TRANSISTOR	
Q7	DTC114EK	TRANSISTOR	
Q8	2SA1037K(QR)	TRANSISTOR	
Q9	2SC241 2K(RS)	TRANSISTOR	
Q10	2SD1691(K)	TRANSISTOR	
Q11	2SK621	FE TRANSISTOR	
Q12	DTA114EK	TRANSISTOR	
Q22	DTC114YK	TRANSISTOR	
Q23	DTC114WK	TRANSISTOR	
Q24	2SD1468S(RS)	TRANSISTOR	
Q25	2SB1151(L)	TRANSISTOR	
Q26	2SB1073(PQ)-XE	TRANSISTOR	
Q27	2SB1073(PQ)-XE	TRANSISTOR	
Q30	2SB907	TRANSISTOR	
Q31	2SB1073(PQ)-XE	TRANSISTOR	
Q32	2SB1073(PQ)-XE	TRANSISTOR	
Q33	DTC114WK	TRANSISTOR	
Q34	DTC114WK	TRANSISTOR	
Q37	DTC114WK	TRANSISTOR	
Q38	DTC114WK	TRANSISTOR	
Q39	DTC114WK	TRANSISTOR	
Q40	2SB1142(RST)	TRANSISTOR	
Q41	2SD1468S(RS)	TRANSISTOR	
Q42	DTA124EK	TRANSISTOR	
Q43	2SB1142(RST)	TRANSISTOR	
Q44	2SD1468S(RS)	TRANSISTOR	
Q45	DTA124EK	TRANSISTOR	
D1	DAN202K	DIODE	
D2	RB400 D	DIODE	
D3	HZ5CLL	ZENER DIODE	
D4	HZ5CLL	ZENER DIODE	
D21	ERA15-02PNLB	DIODE	
D22	ERA15-02PNLB	DIODE	
D25	ERA15-02PNLB	DIODE	
D26	ERA15-02PNLB	DIODE	
D27	ERA15-02PNLB	DIODE	
D28	RK14LF-B2	DIODE	
D29	DAN202K	DIODE	
D30	RK14LF-B2	DIODE	
D31	DAN202K	DIODE	
D32	MA3056(M)	DIODE	
D33	DAN202K	DIODE	
F3	QRSA08J-104YN	RESISTOR	100kΩ, 1/10W
F4	QRSA08J-222YN	RESISTOR	2.2kΩ, 1/10W
F5	QRSA08J-183YN	RESISTOR	18kΩ, 1/10W
F6	QRSA08J-183YN	RESISTOR	18kΩ, 1/10W
F7	QRSA08J-222YN	RESISTOR	2.2kΩ, 1/10W
F8	QRSA08J-222YN	RESISTOR	2.2kΩ, 1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
R9	QRSA08J-222YN	RESISTOR	2.2kΩ, 1/10W
R10	QRSA08J-101YN	RESISTOR	100Ω, 1/10W
R11	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W
R12	QRSA08J-561YN	RESISTOR	560Ω, 1/10W
R13	QRSA08J-222YN	RESISTOR	2.2kΩ, 1/10W
R14	NRVA62D-183N	RESISTOR	18kΩ, 1/16W
R15	NRVA62D-334N	RESISTOR	330kΩ, 1/16W
R16	NRVA62D-334N	RESISTOR	330kΩ, 1/16W
R17	NRVA62D-334N	RESISTOR	330kΩ, 1/16W
R18	QRSA08J-222YN	RESISTOR	2.2kΩ, 1/10W
R19	QRSA08J-222YN	RESISTOR	2.2kΩ, 1/10W
R20	QRSA08J-224YN	RESISTOR	220kΩ, 1/10W
R21	QRSA08J-474YN	RESISTOR	470kΩ, 1/10W
R22	QRSA08J-474YN	RESISTOR	470kΩ, 1/10W
R23	QRSA08J-222YN	RESISTOR	2.2kΩ, 1/10W
R24	QRSA08J-224YN	RESISTOR	220kΩ, 1/10W
R25	NRVA62D-183N	RESISTOR	18kΩ, 1/16W
R26	NRVA62D-334N	RESISTOR	330kΩ, 1/16W
R27	NRVA62D-334N	RESISTOR	330kΩ, 1/16W
R28	NRVA62D-334N	RESISTOR	330kΩ, 1/16W
R29	QRSA08J-222YN	RESISTOR	2.2kΩ, 1/10W
R30	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W
R31	QRSA08J-103YN	RESISTOR	10kΩ, 1/10W
R32	QRSA08J-332YN	RESISTOR	3.3kΩ, 1/10W
R33	QRSA08J-222YN	RESISTOR	2.2kΩ, 1/10W
R34	QRSA08J-561YN	RESISTOR	560Ω, 1/10W
R35	QRSA08J-564YN	RESISTOR	560kΩ, 1/10W
R36	QRSA08J-103YN	RESISTOR	10kΩ, 1/10W
R37	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W
R38	QRSA08J-105YN	RESISTOR	1MΩ, 1/10W
R39	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W
R40	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W
R41	QRSA08J-103YN	RESISTOR	10kΩ, 1/10W
R42	QRSA08J-103YN	RESISTOR	10kΩ, 1/10W
R43	QRSA08J-100YN	RESISTOR	10Ω, 1/10W
R44	QRSA08J-103YN	RESISTOR	10kΩ, 1/10W
R45	QRSA08J-333YN	RESISTOR	33kΩ, 1/10W
R46	QRSA08J-183YN	RESISTOR	18kΩ, 1/10W
R47	QRSA08J-472YN	RESISTOR	4.7kΩ, 1/10W
R48	QRSA08J-222YN	RESISTOR	2.2kΩ, 1/10W
R49	QRSA08J-394YN	RESISTOR	390kΩ, 1/10W
R50	NRVA62D-473N	RESISTOR	47kΩ, 1/16W
R51	NRVA62D-473N	RESISTOR	47kΩ, 1/16W
R52	NRVA62D-222N	RESISTOR	2.2kΩ, 1/16W
R53	QRSA08J-562YN	RESISTOR	5.6kΩ, 1/10W
R54	NRVA62D-222N	RESISTOR	2.2kΩ, 1/16W
R55	QRSA08J-684YN	RESISTOR	680kΩ, 1/10W
R56	QRSA08J-222YN	RESISTOR	2.2kΩ, 1/10W
R57	QRSA08J-222YN	RESISTOR	2.2kΩ, 1/10W
R58	QRSA08J-104YN	RESISTOR	100kΩ, 1/10W
R59	QRSA08J-222YN	RESISTOR	2.2kΩ, 1/10W
R60	QRSA08J-103YN	RESISTOR	10kΩ, 1/10W
R61	QRSA08J-473YN	RESISTOR	47kΩ, 1/10W
R62	QRSA08J-472YN	RESISTOR	4.7kΩ, 1/10W
R63	NRVA62D-222N	RESISTOR	2.2kΩ, 1/16W
R64	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W
R65	QRSA08J-562YN	RESISTOR	5.6kΩ, 1/10W

#	REF No.	PART No.	PART NAME, DESCRIPTION
R66		NRVA62D-222N	RESISTOR 2.2k Ω , 1/10W
R67		QRSA08J-684YN	RESISTOR 680k Ω , 1/10W
R68		QRSA08J-222YN	RESISTOR 2.2k Ω , 1/10W
R69		QRSA08J-222YN	RESISTOR 2.2k Ω , 1/10W
R70		QRSA08J-104YN	RESISTOR 100k Ω , 1/10W
R71		QRSA08J-222YN	RESISTOR 2.2k Ω , 1/10W
R72		QRSA08J-823YN	RESISTOR 82k Ω , 1/10W
R73		QRSA08J-103YN	RESISTOR 10k Ω , 1/10W
R74		QRSA08J-222YN	RESISTOR 2.2k Ω , 1/10W
R75		QRSA08J-105YN	RESISTOR 1M Ω , 1/10W
R76		QRSA08J-103YN	RESISTOR 10k Ω , 1/10W
R77		QRSA08J-104YN	RESISTOR 100k Ω , 1/10W
R78		QRSA08J-0R0Y	RESISTOR 0 Ω , 1/10W
R79		QRSA08J-103YN	RESISTOR 10k Ω , 1/10W
R80		QRSA08J-223YN	RESISTOR 22k Ω , 1/10W
R81		QRSA08J-0R0Y	RESISTOR 0 Ω , 1/10W
R82		QRSA08J-222YN	RESISTOR 2.2k Ω , 1/10W
R83		QRSA08J-822YN	RESISTOR 8.2k Ω , 1/10W
R84		QRSA08J-104YN	RESISTOR 100k Ω , 1/10W
R85		QRSA08J-103YN	RESISTOR 10k Ω , 1/10W
R86		QRSA08J-102YN	RESISTOR 1k Ω , 1/10W
R87		QRSA08J-681YN	RESISTOR 680 Ω , 1/10W
R88		QRSA08J-0R0Y	RESISTOR 0 Ω , 1/10W
R90		QRSA08J-473YN	RESISTOR 47k Ω , 1/10W
R91		QRSA08J-473YN	RESISTOR 47k Ω , 1/10W
R92		QRSA08J-104YN	RESISTOR 100k Ω , 1/10W
R93		QRSA08J-184YN	RESISTOR 180k Ω , 1/10W
R94		QRSA08J-103YN	RESISTOR 10k Ω , 1/10W
R95		QRSA08J-103YN	RESISTOR 10k Ω , 1/10W
R96		QRSA08J-103YN	RESISTOR 10k Ω , 1/10W
R97		QRSA08J-221YN	RESISTOR 220 Ω , 1/10W
R98		QRSA08J-102YN	RESISTOR 1k Ω , 1/10W
R99		QRSA08J-472YN	RESISTOR 4.7k Ω , 1/10W
R100		QRSA08J-272YN	RESISTOR 2.7k Ω , 1/10W
R101		QRSA08J-103YN	RESISTOR 10k Ω , 1/10W
R102		QRSA08J-103YN	RESISTOR 10k Ω , 1/10W
R103		QRSA08J-103YN	RESISTOR 10k Ω , 1/10W
R104		QRSA08J-103YN	RESISTOR 10k Ω , 1/10W
R105		QRSA08J-104YN	RESISTOR 100k Ω , 1/10W
R106		QRSA08J-104YN	RESISTOR 100k Ω , 1/10W
R107		QRSA08J-104YN	RESISTOR 100k Ω , 1/10W
R108		QRSA08J-121YN	RESISTOR 120 Ω , 1/10W
R109		QRSA08J-121YN	RESISTOR 120 Ω , 1/10W
R110		QRSA08J-121YN	RESISTOR 120 Ω , 1/10W
R111		QRSA08J-102YN	RESISTOR 1k Ω , 1/10W
R112		QRSA08J-102YN	RESISTOR 1k Ω , 1/10W
R113		QRSA08J-102YN	RESISTOR 1k Ω , 1/10W
R114		QRSA08J-222YN	RESISTOR 2.2k Ω , 1/10W
R115		QRSA08J-222YN	RESISTOR 2.2k Ω , 1/10W
R116		QRSA08J-224YN	RESISTOR 220k Ω , 1/10W
R117		QRSA08J-224YN	RESISTOR 220k Ω , 1/10W
R118		QRSA08J-102YN	RESISTOR 1k Ω , 1/10W
R119		QRSA08J-102YN	RESISTOR 1k Ω , 1/10W
R120		QRSA08J-102YN	RESISTOR 1k Ω , 1/10W
R121		QRSA08J-102YN	RESISTOR 1k Ω , 1/10W
R122		QRSA08J-102YN	RESISTOR 1k Ω , 1/10W
R123		QRSA08J-102YN	RESISTOR 1k Ω , 1/10W

#	REF No.	PART No.	PART NAME, DESCRIPTION
R124		QRSA08J-102YN	RESISTOR 1k Ω , 1/10W
R125		QRSA08J-102YN	RESISTOR 1k Ω , 1/10W
R126		QRSA08J-472YN	RESISTOR 4.7k Ω , 1/10W
R127		QRSA08J-102YN	RESISTOR 1k Ω , 1/10W
R128		QRSA08J-152YN	RESISTOR 1.5k Ω , 1/10W
R129		QRSA08J-102YN	RESISTOR 1k Ω , 1/10W
R130		QRSA08J-101YN	RESISTOR 100 Ω , 1/10W
R131		QRSA08J-101YN	RESISTOR 100 Ω , 1/10W
R132		QRSA08J-101YN	RESISTOR 100 Ω , 1/10W
R133		QRSA08J-101YN	RESISTOR 100 Ω , 1/10W
R134		QRSA08J-101YN	RESISTOR 100 Ω , 1/10W
R135		QRSA08J-101YN	RESISTOR 100 Ω , 1/10W
R136		QRSA08J-101YN	RESISTOR 100 Ω , 1/10W
R137		QRSA08J-101YN	RESISTOR 100 Ω , 1/10W
R138		QRSA08J-101YN	RESISTOR 100 Ω , 1/10W
R202		QRSA08J-223YN	RESISTOR 22k Ω , 1/10W
R203		QRSA08J-331YN	RESISTOR 330 Ω , 1/10W
R204		QRSA08J-121YN	RESISTOR 120 Ω , 1/10W
R205		QRSA08J-153YN	RESISTOR 1.5k Ω , 1/10W
R206		QRSA08J-102YN	RESISTOR 1k Ω , 1/10W
R207		QRSA08J-333YN	RESISTOR 33k Ω , 1/10W
R208		QRSA08J-102YN	RESISTOR 1k Ω , 1/10W
R209		QRSA08J-153YN	RESISTOR 1.5k Ω , 1/10W
R210		QRSA08J-103YN	RESISTOR 10k Ω , 1/10W
R211		QRSA08J-224YN	RESISTOR 22k Ω , 1/10W
R212		QRSA08J-224YN	RESISTOR 22k Ω , 1/10W
R213		QRSA08J-272YN	RESISTOR 2.7k Ω , 1/10W
R214		QVPC625-103Z	V RESISTOR 10k Ω
R215		QRSA08J-273YN	RESISTOR 27k Ω , 1/10W
R216		QRSA08J-154YN	RESISTOR 15k Ω , 1/10W
R217		QRSA08J-103YN	RESISTOR 10k Ω , 1/10W
R218		QRSA08J-221YN	RESISTOR 220 Ω , 1/10W
R219		QRSA08J-333YN	RESISTOR 33k Ω , 1/10W
R220		QRSA08J-103YN	RESISTOR 10k Ω , 1/10W
R221		QRSA08J-0R0Y	RESISTOR 0 Ω , 1/10W
R222		QVPC625-102Z	V RESISTOR 1k Ω
R223		QRSA08J-681YN	RESISTOR 680 Ω , 1/10W
R224		QRSA08J-271YN	RESISTOR 270 Ω , 1/10W
R225		QRSA08J-221YN	RESISTOR 220 Ω , 1/10W
R226		QRSA08J-121YN	RESISTOR 120 Ω , 1/10W
R227		QRSA08J-104YN	RESISTOR 100k Ω , 1/10W
R228		QRSA08J-103YN	RESISTOR 10k Ω , 1/10W
R229		QRSA08J-103YN	RESISTOR 10k Ω , 1/10W
R230		QRSA08J-103YN	RESISTOR 10k Ω , 1/10W
R231		QRSA08J-103YN	RESISTOR 10k Ω , 1/10W
R232		QRSA08J-563YN	RESISTOR 56k Ω , 1/10W
R233		QRSA08J-104YN	RESISTOR 100k Ω , 1/10W
R234		QRSA08J-104YN	RESISTOR 100k Ω , 1/10W
R235		QRSA08J-103YN	RESISTOR 10k Ω , 1/10W
R236		QRSA08J-682YN	RESISTOR 6.8k Ω , 1/10W
R237		QRSA08J-332YN	RESISTOR 3.3k Ω , 1/10W
R238		QRSA08J-332YN	RESISTOR 3.3k Ω , 1/10W
R239		QRSA08J-473YN	RESISTOR 47k Ω , 1/10W
R240		QRSA08J-103YN	RESISTOR 10k Ω , 1/10W
R241		QRSA08J-274YN	RESISTOR 270 Ω , 1/10W
R242		QRSA08J-102YN	RESISTOR 1k Ω , 1/10W
R243		QRSA08J-102YN	RESISTOR 1k Ω , 1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION		#△ REF No.	PART No.	PART NAME, DESCRIPTION	
R244	QRSA08J-223YN	RESISTOR	22kΩ, 1/10W	R307	QRSA08J-472YN	RESISTOR	4.7kΩ, 1/10W
R245	QRSA08J-222YN	RESISTOR	2.2kΩ, 1/10W	R308	QRSA08J-472YN	RESISTOR	4.7kΩ, 1/10W
R246	QRSA08J-682YN	RESISTOR	6.8kΩ, 1/10W	R309	QRSA08J-472YN	RESISTOR	4.7kΩ, 1/10W
R247	QRSA08J-332YN	RESISTOR	3.3kΩ, 1/10W				
R248	QRSA08J-332YN	RESISTOR	3.3kΩ, 1/10W	R314	QRSA08J-472YN	RESISTOR	4.7kΩ, 1/10W
R249	QRSA08J-333YN	RESISTOR	33kΩ, 1/10W	R315	QRSA08J-472YN	RESISTOR	4.7kΩ, 1/10W
R250	QRSA08J-103YN	RESISTOR	10kΩ, 1/10W	R316	QRSA08J-472YN	RESISTOR	4.7kΩ, 1/10W
				R317	QRSA08J-472YN	RESISTOR	4.7kΩ, 1/10W
R251	QRSA08J-474YN	RESISTOR	470kΩ, 1/10W	R318	QRSA08J-472YN	RESISTOR	4.7kΩ, 1/10W
R252	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W	R319	QRSA08J-472YN	RESISTOR	4.7kΩ, 1/10W
R253	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W	R320	QRSA08J-223YN	RESISTOR	22kΩ, 1/10W
R254	QRSA08J-223YN	RESISTOR	22kΩ, 1/10W				
R255	QRSA08J-222YN	RESISTOR	2.2kΩ, 1/10W	R321	QRSA08J-183YN	RESISTOR	18kΩ, 1/10W
R256	QRSA08J-121YN	RESISTOR	120Ω, 1/10W	R322	QRSA08J-223YN	RESISTOR	22kΩ, 1/10W
R260	QRSA08J-682YN	RESISTOR	6.8kΩ, 1/10W	R323	QRSA08J-183YN	RESISTOR	18kΩ, 1/10W
				R324	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W
R261	QRSA08J-332YN	RESISTOR	3.3kΩ, 1/10W	△ R325	QRG019J-561S	OMF RESISTOR	560Ω, 1W
R262	QRSA08J-332YN	RESISTOR	3.3kΩ, 1/10W	R326	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W
R263	QRSA08J-473YN	RESISTOR	47kΩ, 1/10W	R327	QRSA08J-104YN	RESISTOR	100kΩ, 1/10W
R264	QRSA08J-103YN	RESISTOR	10kΩ, 1/10W	R328	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W
R265	QRSA08J-274YN	RESISTOR	270kΩ, 1/10W	R329	QRSA08J-103YN	RESISTOR	10kΩ, 1/10W
R266	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W	R330	QRSA08J-682YN	RESISTOR	6.8kΩ, 1/10W
R267	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W				
R268	QRSA08J-223YN	RESISTOR	22kΩ, 1/10W	R331	QRSA08J-223YN	RESISTOR	22kΩ, 1/10W
R269	QRSA08J-222YN	RESISTOR	2.2kΩ, 1/10W	R332	QRX029J-R56A	MF RESISTOR	0.56Ω, 2W
R270	QRSA08J-682YN	RESISTOR	6.8kΩ, 1/10W	R333	QRSA08J-221YN	RESISTOR	220Ω, 1/10W
				R334	QRSA08J-221YN	RESISTOR	220Ω, 1/10W
R271	QRSA08J-332YN	RESISTOR	3.3kΩ, 1/10W	R335	QRSA08J-472YN	RESISTOR	4.7kΩ, 1/10W
R272	QRSA08J-332YN	RESISTOR	3.3kΩ, 1/10W	R336	QRSA08J-333YN	RESISTOR	33kΩ, 1/10W
R273	QRSA08J-333YN	RESISTOR	33kΩ, 1/10W	R337	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W
R274	QRSA08J-103YN	RESISTOR	10kΩ, 1/10W	R338	QRG019J-561S	OMF RESISTOR	560Ω, 1W
R275	QRSA08J-474YN	RESISTOR	470kΩ, 1/10W	R339	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W
R276	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W	R340	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W
R277	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W				
R278	QRSA08J-223YN	RESISTOR	22kΩ, 1/10W	R341	QRSA08J-104YN	RESISTOR	100kΩ, 1/10W
R279	QRSA08J-222YN	RESISTOR	2.2kΩ, 1/10W	R342	QRSA08J-103YN	RESISTOR	10kΩ, 1/10W
R280	QRSA08J-121YN	RESISTOR	120Ω, 1/10W	R343	QRSA08J-682YN	RESISTOR	6.8kΩ, 1/10W
				R344	QRSA08J-223YN	RESISTOR	22kΩ, 1/10W
R284	QRSA08J-473YN	RESISTOR	47kΩ, 1/10W	R345	QRSA08J-221YN	RESISTOR	220Ω, 1/10W
R285	QRSA08J-473YN	RESISTOR	47kΩ, 1/10W	R346	QRX029J-R56A	MF RESISTOR	0.56Ω, 2W
R286	QRSA08J-153YN	RESISTOR	15kΩ, 1/10W	R347	QRSA08J-221YN	RESISTOR	220Ω, 1/10W
R287	QRSA08J-393YN	RESISTOR	39kΩ, 1/10W	R348	QRSA08J-823YN	RESISTOR	82kΩ, 1/10W
R288	QRSA08J-221YN	RESISTOR	220Ω, 1/10W	△ R349	QRSA08J-182YN	RESISTOR	1.8kΩ, 1/10W
R289	QRSA08J-121YN	RESISTOR	120Ω, 1/10W	R350	QRSA08J-562YN	RESISTOR	5.6kΩ, 1/10W
R290	QRSA08J-121YN	RESISTOR	120Ω, 1/10W				
				R351	QRSA08J-103YN	RESISTOR	10kΩ, 1/10W
R291	QRSA08J-103YN	RESISTOR	10kΩ, 1/10W	R352	QRSA08J-103YN	RESISTOR	10kΩ, 1/10W
R292	QRSA08J-103YN	RESISTOR	10kΩ, 1/10W	R353	QRSA08J-103YN	RESISTOR	10kΩ, 1/10W
R293	QRSA08J-103YN	RESISTOR	10kΩ, 1/10W	R354	QRSA08J-0R0Y	RESISTOR	0Ω, 1/10W
R294	QRSA08J-103YN	RESISTOR	10kΩ, 1/10W				
R295	QRSA08J-103YN	RESISTOR	10kΩ, 1/10W	C1	QENC1CM-476	NP E CAPACITOR	47μF, 16V
R296	QRSA08J-103YN	RESISTOR	10kΩ, 1/10W	C2	QETC1CM-476	E CAPACITOR	47μF, 16V
R297	QRSA08J-103YN	RESISTOR	10kΩ, 1/10W	C3	QCFA1EZ-104	CAPACITOR	0.1μF, 25V
R298	QRSA08J-104YN	RESISTOR	100kΩ, 1/10W	C4	QCFA1EZ-104	CAPACITOR	0.1μF, 25V
R299	QRSA08J-104YN	RESISTOR	100kΩ, 1/10W	C5	QCFA1EZ-104	CAPACITOR	0.1μF, 25V
R300	QRSA08J-104YN	RESISTOR	100kΩ, 1/10W	C6	QFP42AF-102M	PP CAPACITOR	0.001μF, 100V
				C7	QCFA1EZ-104	CAPACITOR	0.1μF, 25V
R301	QRSA08J-104YN	RESISTOR	100kΩ, 1/10W	C8	QCFA1EZ-104	CAPACITOR	0.1μF, 25V
R302	QRSA08J-104YN	RESISTOR	100kΩ, 1/10W	C9	QFP42AF-102M	PP CAPACITOR	0.001μF, 100V
R303	QRSA08J-104YN	RESISTOR	100kΩ, 1/10W	C10	QCYA1HK-102	CAPACITOR	0.001μF, 50V
R304	QRSA08J-104YN	RESISTOR	100kΩ, 1/10W				
R305	QRSA08J-681YN	RESISTOR	680Ω, 1/10W	C11	QCTA1CH-271	CAPACITOR	270pF, 16V
R306	QRSA08J-472YN	RESISTOR	4.7kΩ, 1/10W				

#△ REF No.	PART No.	PART NAME, DESCRIPTION	#△ REF No.	PART No.	PART NAME, DESCRIPTION
C12	QCTA1CH-150	CAPACITOR 15pF,16V	C70	QCTA1CH-101	CAPACITOR 100pF,16V
C13	QCYA1HK-102	CAPACITOR 0.001 μ F,50V	C71	QCTA1CH-101	CAPACITOR 100pF,16V
C14	QFN31HJ-473	M CAPACITOR 0.047 μ F,50V	C72	QCTA1CH-101	CAPACITOR 100pF,16V
C15	QETC1CM-106	E CAPACITOR 10 μ F,16V	C73	QCTA1CH-101	CAPACITOR 100pF,16V
C16	QCYA1HK-223	CAPACITOR 0.022 μ F,50V	C74	QCTA1CH-101	CAPACITOR 100pF,16V
C17	QETC1CM-476	E CAPACITOR 47 μ F,16V	C75	QCTA1CH-101	CAPACITOR 100pF,16V
C18	QETC1CM-476	E CAPACITOR 47 μ F,16V	C76	QCTA1CH-101	CAPACITOR 100pF,16V
C19	QCFA1EZ-104	CAPACITOR 0.1 μ F,25V	C77	QCTA1CH-101	CAPACITOR 100pF,16V
C20	QCTA1CH-100	CAPACITOR 10pF,16V	C79	QCTA1CH-101	CAPACITOR 100pF,16V
C21	QCYA1HK-223	CAPACITOR 0.022 μ F,50V	C80	QCTA1CH-101	CAPACITOR 100pF,16V
C22	QETC1CM-476	E CAPACITOR 47 μ F,16V	C81	QCTA1CH-101	CAPACITOR 100pF,16V
C23	QCFA1EZ-104	CAPACITOR 0.1 μ F,25V	C82	QCTA1CH-101	CAPACITOR 100pF,16V
C24	QCTA1CH-100	CAPACITOR 10pF,16V	C83	QCTA1CH-101	CAPACITOR 100pF,16V
C25	QCTA1CH-101	CAPACITOR 100pF,16V	C84	QCTA1CH-101	CAPACITOR 100pF,16V
C26	QCTA1CH-101	CAPACITOR 100pF,16V	C85	QCTA1CH-101	CAPACITOR 100pF,16V
C27	QETC1CM-106	E CAPACITOR 10 μ F,16V	C86	QCTA1CH-101	CAPACITOR 100pF,16V
C28	QCYA1HK-102	CAPACITOR 0.001 μ F,50V	C87	QCTA1CH-101	CAPACITOR 100pF,16V
C29	QCYA1HK-273	CAPACITOR 0.027 μ F,50V	C88	QCTA1CH-101	CAPACITOR 100pF,16V
C30	QCYA1HK-223	CAPACITOR 0.022 μ F,50V	C89	QCTA1CH-101	CAPACITOR 100pF,16V
C31	QETC1HM-334	E CAPACITOR 0.33 μ F,50V	C90	QCTA1CH-101	CAPACITOR 100pF,16V
C32	QCTA1CH-270	CAPACITOR 27pF,16V	C91	QCTA1CH-101	CAPACITOR 100pF,16V
C33	QCTA1CH-470	CAPACITOR 47pF,16V	C92	QCTA1CH-101	CAPACITOR 100pF,16V
C34	QCYA1HK-472	CAPACITOR 0.0047 μ F,50V	C93	QCTA1CH-101	CAPACITOR 100pF,16V
C35	QCYA1HK-472	CAPACITOR 0.0047 μ F,50V	C94	QCTA1CH-101	CAPACITOR 100pF,16V
C36	QCFA1EZ-104	CAPACITOR 0.1 μ F,25V	C95	QCTA1CH-101	CAPACITOR 100pF,16V
C37	QETC1EM-475	E CAPACITOR 4.7 μ F,25V	C96	QCTA1CH-101	CAPACITOR 100pF,16V
C38	QETC1HM-225	E CAPACITOR 2.2 μ F,50V	C101	QCYA1HK-102	CAPACITOR 0.001 μ F,50V
C39	QCFA1EZ-104	CAPACITOR 0.1 μ F,25V	C102	QCYA1HK-103	CAPACITOR 0.01 μ F,50V
C40	QCTA1CH-101	CAPACITOR 100pF,16V	C103	QETC1CM-476	E CAPACITOR 47 μ F,16V
C41	QCYA1HK-103	CAPACITOR 0.01 μ F,50V	C104	QCYA1HK-223	CAPACITOR 0.022 μ F,50V
C42	QCYA1HK-103	CAPACITOR 0.01 μ F,50V	C105	QCYA1HK-223	CAPACITOR 0.022 μ F,50V
C43	QCYA1HK-223	CAPACITOR 0.022 μ F,50V	C106	QCYA1HK-223	CAPACITOR 0.022 μ F,50V
C44	QETC1CM-476	E CAPACITOR 47 μ F,16V	C107	QFN31HJ-104	M CAPACITOR 0.1 μ F,50V
C45	QCYA1HK-223	CAPACITOR 0.022 μ F,50V	C108	QCTA1CH-821	CAPACITOR 820pF,16V
C46	QCYA1HK-223	CAPACITOR 0.022 μ F,50V	C109	QCYA1HK-102	CAPACITOR 0.001 μ F,50V
C47	QCYA1HK-223	CAPACITOR 0.022 μ F,50V	C110	QCYA1HK-102	CAPACITOR 0.001 μ F,50V
C48	QCFA1CZ-334	CAPACITOR 0.33 μ F,16V	C111	QCYA1HK-223	CAPACITOR 0.022 μ F,50V
C49	QCFA1CZ-334	CAPACITOR 0.33 μ F,16V	C112	QCYA1HK-223	CAPACITOR 0.022 μ F,50V
C50	QETC1CM-476	E CAPACITOR 47 μ F,16V	C113	QCYA1HK-103	CAPACITOR 0.01 μ F,50V
C51	QCYA1HK-223	CAPACITOR 0.022 μ F,50V	C114	QCFA1EZ-104	CAPACITOR 0.1 μ F,25V
C52	QCYA1HK-223	CAPACITOR 0.022 μ F,50V	C115	QCYA1HK-223	CAPACITOR 0.022 μ F,50V
C53	QCYA1HK-102	CAPACITOR 0.001 μ F,50V	C116	QETC1CM-476	E CAPACITOR 47 μ F,16V
C54	QCYA1HK-223	CAPACITOR 0.022 μ F,50V	C117	QCYA1HK-223	CAPACITOR 0.022 μ F,50V
C55	QCYA1HK-223	CAPACITOR 0.022 μ F,50V	C118	QETC1CM-476	E CAPACITOR 47 μ F,16V
C56	QCYA1HK-223	CAPACITOR 0.022 μ F,50V	C119	QETC1CM-106	E CAPACITOR 10 μ F,16V
C57	QCYA1HK-223	CAPACITOR 0.022 μ F,50V	C120	QCYA1HK-223	CAPACITOR 0.022 μ F,50V
C58	QCYA1HK-223	CAPACITOR 0.022 μ F,50V	C121	QETC1CM-106	E CAPACITOR 10 μ F,16V
C59	QCYA1HK-223	CAPACITOR 0.022 μ F,50V	C122	QCYA1HK-223	CAPACITOR 0.022 μ F,50V
C60	QCYA1HK-223	CAPACITOR 0.022 μ F,50V	C123	QCYA1HK-223	CAPACITOR 0.022 μ F,50V
C61	QCYA1HK-223	CAPACITOR 0.022 μ F,50V	C124	QCYA1HK-103	CAPACITOR 0.001 μ F,50V
C62	QCYA1HK-223	CAPACITOR 0.022 μ F,50V	C125	QCYA1HK-103	CAPACITOR 0.001 μ F,50V
C63	QCYA1HK-223	CAPACITOR 0.022 μ F,50V	C126	QCYA1HK-102	CAPACITOR 0.001 μ F,50V
C64	QCYA1HK-223	CAPACITOR 0.022 μ F,50V	C127	QCYA1HK-103	CAPACITOR 0.001 μ F,50V
C65	QCYA1HK-223	CAPACITOR 0.022 μ F,50V	C130	QCFA1EZ-104	CAPACITOR 0.1 μ F,25V
C66	QCYA1HK-223	CAPACITOR 0.022 μ F,50V	C131	QCYA1HK-223	CAPACITOR 0.022 μ F,50V
C67	QCYA1HK-223	CAPACITOR 0.022 μ F,50V	C132	QCTA1CH-7R0	CAPACITOR 7pF,16V
C68	QCTA1CH-101	CAPACITOR 100pF,16V			
C69	QCTA1CH-101	CAPACITOR 100pF,16V			

#△ REF No.	PART No.	PART NAME, DESCRIPTION		#△ REF No.	PART No.	PART NAME, DESCRIPTION	
C133	QCYA1HK-223	CAPACITOR	0.022 μ F,50V	C195	QETC1VM-227	E CAPACITOR	220 μ F,35V
C134	QCFA1EZ-104	CAPACITOR	0.1 μ F,25V	C196	QEZ0139-107Z	E CAPACITOR	100 μ F
C135	QCTA1CH-7R0	CAPACITOR	7pF,16V	C197	QEZ0139-107Z	E CAPACITOR	100 μ F
C138	QCFA1EZ-104	CAPACITOR	0.1 μ F,25V	C198	QEZ0139-107Z	E CAPACITOR	100 μ F
C139	QCTA1CH-7R0	CAPACITOR	7pF,16V	C199	QETC1CM-106	E CAPACITOR	10 μ F,16V
C140	QCYA1HK-223	CAPACITOR	0.022 μ F,50V	C200	QCYA1HK-223	CAPACITOR	0.022 μ F,50V
C141	QCYA1HK-223	CAPACITOR	0.022 μ F,50V	C201	QETC1EM-476	E CAPACITOR	47 μ F,25V
C142	QCFA1EZ-104	CAPACITOR	0.1 μ F,25V	C202	QFV11HJ-104	MM CAPACITOR	0.1 μ F,50V
C143	QCTA1CH-7R0	CAPACITOR	7pF,16V	C203	QCYA1HK-223	CAPACITOR	0.022 μ F,50V
C146	QCYA1HK-223	CAPACITOR	0.022 μ F,50V	C205	QFV11HJ-104	MM CAPACITOR	0.1 μ F,50V
C147	QETC1CM-476	E CAPACITOR	47 μ F,16V	C206	QFV11HJ-104	MM CAPACITOR	0.1 μ F,50V
C148	QCYA1HK-472	CAPACITOR	0.0047 μ F,50V	C207	QFV11HJ-154	TF CAPACITOR	0.15 μ F,50V
C149	QCYA1HK-472	CAPACITOR	0.0047 μ F,50V	C208	QFV11HJ-154	TF CAPACITOR	0.15 μ F,50V
C150	QCYA1HK-103	CAPACITOR	0.01 μ F,50V	C209	QFV11HJ-154	TF CAPACITOR	0.15 μ F,50V
C151	QCYA1HK-103	CAPACITOR	0.01 μ F,50V	C210	QETC1HM-475	E CAPACITOR	4.7 μ F,50V
C152	QCYA1HK-103	CAPACITOR	0.01 μ F,50V	C211	QETC1HM-475	E CAPACITOR	4.7 μ F,50V
C153	QCYA1HK-102	CAPACITOR	0.001 μ F,50V	C212	QETC1HM-475	E CAPACITOR	4.7 μ F,50V
C154	QCYA1HK-103	CAPACITOR	0.01 μ F,50V	C213	QCYA1HK-472	CAPACITOR	0.0047 μ F,50V
C155	QCYA1HK-103	CAPACITOR	0.01 μ F,50V	C214	QCYA1HK-472	CAPACITOR	0.0047 μ F,50V
C156	QCYA1HK-103	CAPACITOR	0.01 μ F,50V	C215	QCYA1HK-472	CAPACITOR	0.0047 μ F,50V
C157	QCYA1HK-223	CAPACITOR	0.022 μ F,50V	C216	QCFA1EZ-104	CAPACITOR	0.1 μ F,25V
C158	QETC1VM-227	E CAPACITOR	220 μ F,35V	C217	QCFA1EZ-104	CAPACITOR	0.1 μ F,25V
C159	QETC1EM-476	E CAPACITOR	47 μ F,25V	C218	QCFA1EZ-104	CAPACITOR	0.1 μ F,25V
C160	QCYA1HK-223	CAPACITOR	0.022 μ F,50V	C219	QCFA1EZ-104	CAPACITOR	0.1 μ F,25V
C161	QETC1CM-476	E CAPACITOR	47 μ F,16V	L1	PU48530-271J	COIL	270 μ H
C162	QCYA1HK-223	CAPACITOR	0.022 μ F,50V	L2	PU48530-271J	COIL	270 μ H
C163	QCYA1HK-223	CAPACITOR	0.022 μ F,50V	L3	PU50277	COIL	
C164	QETC1CM-476	E CAPACITOR	47 μ F,16V	L4	PU48530-271J	COIL	270 μ H
C165	QCYA1HK-223	CAPACITOR	0.022 μ F,50V	L21	PU50277	COIL	
C166	QETC1CM-476	E CAPACITOR	47 μ F,16V	L22	PU48530-271J	COIL	270 μ H
C167	QCYA1HK-223	CAPACITOR	0.022 μ F,50V	L23	PU48530-271J	COIL	270 μ H
C168	QCYA1HK-223	CAPACITOR	0.022 μ F,50V	L25	PU48530-271J	COIL	270 μ H
C169	QCYA1HK-223	CAPACITOR	0.022 μ F,50V	L26	PU50277	COIL	
C170	QCYA1HK-223	CAPACITOR	0.022 μ F,50V	L27	PU48530-271J	COIL	270 μ H
C171	QCYA1HK-223	CAPACITOR	0.022 μ F,50V	L28	PU48530-271J	COIL	270 μ H
C172	QETC1EM-107	E CAPACITOR	100 μ F,25V	L29	PU48530-271J	COIL	270 μ H
C173	QEZ0139-107Z	E CAPACITOR	100 μ F	L30	PU50277	COIL	
C174	QEZ0139-107Z	E CAPACITOR	100 μ F	L31	PGZ01998	COIL	
C175	QEZ0139-107Z	E CAPACITOR	100 μ F	L32	PGZ01990	COIL	
C176	QCYA1HK-223	CAPACITOR	0.022 μ F,50V	L33	PU50277	COIL	
C177	QETC1CM-106	E CAPACITOR	10 μ F,16V	L34	PGZ01998	COIL	
C178	QCYA1HK-223	CAPACITOR	0.022 μ F,50V	L35	PGZ01990	COIL	
C179	QETC1EM-476	E CAPACITOR	47 μ F,25V				
C180	QFV11HJ-104	MM CAPACITOR	0.1 μ F,50V				
C181	QCYA1HK-223	CAPACITOR	0.022 μ F,50V	△ X1	PEVB0335	CRYSTAL RESONATOR	
C183	QFV11HJ-104	MM CAPACITOR	0.1 μ F,50V	△ K1	PU60281-2Z	FERRITE BEADS, \times 2(K1, K2)	
C184	QFV11HJ-104	MM CAPACITOR	0.1 μ F,50V	△ K3	PGZ02003	FERRITE CORE, \times 1	
C185	QFV11HJ-154	TF CAPACITOR	0.15 μ F,50V	△ HS1	PQ45789	HEAT SINK, \times 3	
C186	QFV11HJ-154	TF CAPACITOR	0.15 μ F,50V				
C187	QFV11HJ-154	TF CAPACITOR	0.15 μ F,50V				
C188	QETC1HM-475	E CAPACITOR	4.7 μ F,50V				
C189	QETC1HM-475	E CAPACITOR	4.7 μ F,50V				
C190	QETC1HM-475	E CAPACITOR	4.7 μ F,50V				
C191	QCYA1HK-472	CAPACITOR	0.0047 μ F,50V	SCW1	SBSB3008Z	SCREW, \times 2	
C192	QCYA1HK-472	CAPACITOR	0.0047 μ F,50V	SCW2	SBSB3010Z	SCREW, \times 4	
C193	QCYA1HK-472	CAPACITOR	0.0047 μ F,50V				
C194	QETC1VM-227	E CAPACITOR	220 μ F,35V				

#	△	REF No.	PART No.	PART NAME, DESCRIPTION
		SKT1	PGZ01724-028	IC SOCKET
		SLD2	PRS20010	SHIELD CASE
		TP1	SQMX001-001Z	TEST PIN, ×7
		CN1	PU59973-18	CONNECTOR
		CN2	PU59555-3	CONNECTOR
		CN3	PU59555-8	CONNECTOR
		CN4	PU59555-8	CONNECTOR
		CN5	PU59555-10	CONNECTOR
		CN6	PU59555-5	CONNECTOR
		CN7	PU59973-18	CONNECTOR
		CN8	PU59555-104	CONNECTOR
		CN21	PU59555-5	CONNECTOR
		CN22	PU59555-4	CONNECTOR
		CN23	PU59555-2	CONNECTOR
		CN24	PU59555-2	CONNECTOR
		CN25	PU59555-8	CONNECTOR
		CN26	PU59555-9	CONNECTOR
		CN27	PU59555-4	CONNECTOR
		CN28	PU59555-3	CONNECTOR
		CN29	PU59555-10	CONNECTOR
		CN30	PU59555-7	CONNECTOR
		CN31	PU59555-10	CONNECTOR
		CN32	PU59555-7	CONNECTOR
△		CP1	ICP-F10	CIRCUIT PROTECTOR
△		CP2	ICP-F10	CIRCUIT PROTECTOR
△		CP3	ICP-F10	CIRCUIT PROTECTOR

SYSCON BOARD ASSEMBLY <31>

PWBA	PRK20214C-01	SYSCON BOARD ASSY, BR-S800
PWBA	PRK20214D-01	SYSCON BOARD ASSY, BR-S500
IC1	SC78148GF-026	IC
IC2	M27C512-15F1	IC
IC2	PGD30620C-15-1	IC
IC3	BR24C01AF	IC
IC4	TC74HC373AF	IC
IC5	TC74HC00AF	IC
IC6	TC74HC00AF	IC
IC7	TC74HC04AF	IC
IC8	TC74HC30AF	IC
IC9	M51957BFP	IC
Q1	DTC144EK	TRANSISTOR
D1	DA204K	DIODE

#	△	REF No.	PART No.	PART NAME, DESCRIPTION
		D2	DA204K	DIODE
		D3	DA204K	DIODE
		D4	DA204K	DIODE
		D5	DA204K	DIODE
		R6	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R7	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R8	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R9	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R10	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R11	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R12	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R13	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R14	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R15	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R16	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R17	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R18	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R19	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R20	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R21	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R22	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R23	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R24	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R25	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R26	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R27	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R28	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R29	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R30	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R31	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R32	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R33	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R34	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R35	QRSA08J-102YN	RESISTOR 1k Ω, 1/10W
		R36	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R37	QRSA08J-0R0Y	RESISTOR 0 Ω, 1/10W
		R41	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R42	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R43	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R45	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W
		R46	QRSA08J-102YN	RESISTOR 1k Ω, 1/10W
		R50	QRSA08J-333YN	RESISTOR 3k Ω, 1/10W
		R51	QRSA08J-333YN	RESISTOR 3k Ω, 1/10W
		R52	QRSA08J-333YN	RESISTOR 3k Ω, 1/10W
		R53	QRSA08J-333YN	RESISTOR 3k Ω, 1/10W
		R55	QRSA08J-473YN	RESISTOR, BR-S500 4k Ω, 1/10W
		R56	QRSA08J-473YN	RESISTOR 4k Ω, 1/10W
		R57	QRSA08J-473YN	RESISTOR 4k Ω, 1/10W
		R60	QRSA08J-183YN	RESISTOR 1k Ω, 1/10W
		R61	QRSA08J-273YN	RESISTOR 2k Ω, 1/10W
		R62	QRSA08J-473YN	RESISTOR 4k Ω, 1/10W
		R64	QRSA08J-102YN	RESISTOR 1k Ω, 1/10W
		R65	QRSA08J-473YN	RESISTOR 4k Ω, 1/10W
		R66	QRSA08J-472YN	RESISTOR 4k Ω, 1/10W
		R67	QRSA08J-472YN	RESISTOR 4k Ω, 1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	#△ REF No.	PART No.	PART NAME, DESCRIPTION
R68	QRSA08J-473YN	RESISTOR 47kΩ, 1/10W	C20	QCYA1HK-221	CAPACITOR 220pF, 50V
R69	QRSA08J-473YN	RESISTOR 47kΩ, 1/10W	C21	QCYA1HK-221	CAPACITOR 220pF, 50V
R70	QRSA08J-472YN	RESISTOR 4.7kΩ, 1/10W	C23	QCYA1HK-221	CAPACITOR 220pF, 50V
R71	QRSA08J-472YN	RESISTOR 4.7kΩ, 1/10W	C26	QCYA1HK-103	CAPACITOR 0.01 μ F, 50V
R72	QRSA08J-472YN	RESISTOR 4.7kΩ, 1/10W	C30	QCYA1HK-102	CAPACITOR 0.001 μ F, 50V
R73	QRSA08J-472YN	RESISTOR 4.7kΩ, 1/10W	C31	QCYA1HK-102	CAPACITOR 0.001 μ F, 50V
R74	QRSA08J-472YN	RESISTOR 4.7kΩ, 1/10W	C32	QCYA1HK-102	CAPACITOR 0.001 μ F, 50V
R75	QRSA08J-473YN	RESISTOR 47kΩ, 1/10W	C33	QCYA1HK-102	CAPACITOR 0.001 μ F, 50V
R76	QRSA08J-473YN	RESISTOR 47kΩ, 1/10W	C34	QCYA1HK-102	CAPACITOR 0.001 μ F, 50V
R77	QRSA08J-473YN	RESISTOR 47kΩ, 1/10W	C35	QCYA1HK-102	CAPACITOR 0.001 μ F, 50V
R78	QRSA08J-473YN	RESISTOR 47kΩ, 1/10W	C36	QCYA1HK-102	CAPACITOR 0.001 μ F, 50V
R80	QRSA08J-103YN	RESISTOR 10kΩ, 1/10W	C51	QCTA1CH-101	CAPACITOR 100pF, 16V
R81	QRSA08J-103YN	RESISTOR 10kΩ, 1/10W	C52	QCTA1CH-101	CAPACITOR 100pF, 16V
R82	QRSA08J-103YN	RESISTOR 10kΩ, 1/10W	C53	QCTA1CH-101	CAPACITOR 100pF, 16V
R83	QRSA08J-103YN	RESISTOR 10kΩ, 1/10W	C54	QCTA1CH-101	CAPACITOR 100pF, 16V
R84	QRSA08J-103YN	RESISTOR 10kΩ, 1/10W	C55	QCTA1CH-101	CAPACITOR 100pF, 16V
R85	QRSA08J-103YN	RESISTOR 10kΩ, 1/10W	C56	QCTA1CH-101	CAPACITOR 100pF, 16V
R86	QRSA08J-103YN	RESISTOR 10kΩ, 1/10W	C57	QCTA1CH-101	CAPACITOR 100pF, 16V
R91	QRSA08J-0R0Y	RESISTOR, BR-S800 0 Ω, 1/10W	C58	QCTA1CH-101	CAPACITOR 100pF, 16V
R95	QRSA08J-0R0Y	RESISTOR 0 Ω, 1/10W	C59	QCTA1CH-101	CAPACITOR 100pF, 16V
R101	QRSA08J-473YN	RESISTOR 47kΩ, 1/10W	C61	QCTA1CH-101	CAPACITOR 100pF, 16V
R111	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W	C62	QCTA1CH-101	CAPACITOR 100pF, 16V
R112	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W	C63	QCTA1CH-101	CAPACITOR 100pF, 16V
R113	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W	C64	QCTA1CH-101	CAPACITOR 100pF, 16V
R114	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W	C65	QCTA1CH-101	CAPACITOR 100pF, 16V
R115	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W	C66	QCTA1CH-101	CAPACITOR 100pF, 16V
R116	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W	C67	QCTA1CH-101	CAPACITOR 100pF, 16V
R117	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W	C68	QCTA1CH-101	CAPACITOR 100pF, 16V
R118	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W	C69	QCTA1CH-101	CAPACITOR 100pF, 16V
R119	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W	C70	QCTA1CH-101	CAPACITOR 100pF, 16V
R120	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W	C71	QCTA1CH-101	CAPACITOR 100pF, 16V
R121	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W	C72	QCTA1CH-101	CAPACITOR 100pF, 16V
R122	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W	C73	QCTA1CH-101	CAPACITOR 100pF, 16V
R123	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W	C74	QCTA1CH-101	CAPACITOR 100pF, 16V
R124	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W	C75	QCTA1CH-101	CAPACITOR 100pF, 16V
R125	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W	C76	QCTA1CH-101	CAPACITOR 100pF, 16V
R126	QRSA08J-101YN	RESISTOR 100 Ω, 1/10W	C77	QCTA1CH-101	CAPACITOR 100pF, 16V
C1	QER61CM-226	E CAPACITOR 22 μ F, 16V	L1	PGZ00617-221	COIL
C2	QCYA1HK-103	CAPACITOR 0.01 μ F, 50V	△ X1	PGZ00513	CERAMIC FILTER
C3	QCYA1HK-103	CAPACITOR 0.01 μ F, 50V	△ K1	QRD161J-0R0	FERRITE BEADS
C4	QCYA1HK-103	CAPACITOR 0.01 μ F, 50V	△ K2	PGZ00354	FERRITE BEADS
C5	QCYA1HK-103	CAPACITOR 0.01 μ F, 50V	SKT1	PGZ01724-028	IC SOCKET
C6	QCYA1HK-103	CAPACITOR 0.01 μ F, 50V	△ SLD1	PRS30039	SHIELD CASE
C7	QCYA1HK-103	CAPACITOR 0.01 μ F, 50V	SLD2	PGZ01128-02	SPACER, × 2
C8	QCYA1HK-103	CAPACITOR 0.01 μ F, 50V	CN1	PGZ01937-64	MALE CONNECTOR
C9	QCYA1HK-103	CAPACITOR 0.01 μ F, 50V			
C12	QCYA1HK-103	CAPACITOR 0.01 μ F, 50V			
C13	QCYA1HK-103	CAPACITOR 0.01 μ F, 50V			
C14	QCYA1EK-104	CAPACITOR 0.1 μ F, 25V			
C15	QCYA1HK-103	CAPACITOR 0.01 μ F, 50V			
C16	QCTA1CH-220	CAPACITOR 22pF, 16V			
C17	QCTA1CH-220	CAPACITOR 22pF, 16V			
C18	QCYA1HK-221	CAPACITOR 220pF, 50V			
C19	QCYA1HK-221	CAPACITOR 220pF, 50V			

#△ REF No. PART No. PART NAME, DESCRIPTION

OPERATION-CPU BOARD ASSEMBLY <32>

PWBA PRK10151A1-02 OPERATION-CPU BOARD ASSY

Q1 DTC144EK TRANSISTOR

D1 SLV-56YC3F LE DIODE
 D2 SLV-56YC3F LE DIODE
 D3 SLV-56YC3F LE DIODE
 D6 SLV-56YC3F LE DIODE
 D7 SLV-56YC3F LE DIODE
 D8 SLV-56YC3F LE DIODE

R2 QRSA08J-121YN RESISTOR 120 Ω, 1/10W
 R3 QRSA08J-121YN RESISTOR 120 Ω, 1/10W

R20 QRSA08J-681YN RESISTOR 680 Ω, 1/10W
 R21 QRSA08J-681YN RESISTOR 680 Ω, 1/10W
 R22 QRSA08J-681YN RESISTOR 680 Ω, 1/10W
 R23 QRSA08J-681YN RESISTOR 680 Ω, 1/10W

C1 QER61CM-476 E CAPACITOR 47 μ F, 16V
 C2 QCYA1HK-223 CAPACITOR 0.022 μ F, 50V
 C3 QER61CM-476 E CAPACITOR 47 μ F, 16V
 C4 QCYA1HK-223 CAPACITOR 0.022 μ F, 50V

L1 PGZ00617-221 COIL
 L2 PGZ00617-221 COIL

MET1 PGZ01337-02 METER
 MET2 PGZ01336-02 METER

SPC1 PRD30597 SHADE, × 2 (FOR METER)

CN1 PGZ01942-10 CONNECTOR
 CN2 PGZ01942-10 CONNECTOR
 CN3 PGZ01942-10 CONNECTOR
 CN4 PGZ01942-10 CONNECTOR
 CN5 PU59973-18 CONNECTOR
 CN6 PU59973-24 CONNECTOR
 CN7 PU59973-18 CONNECTOR

OPERATION-VR BOARD ASSEMBLY <33>

PWBA PRK10151A2-02 OPE.-VR BOARD ASSY, BR-S800
 PWBA PRK10151B2-02 OPE.-VR BOARD ASSY, BR-S500

STK1 PRD30072-86 STICKER, × 2

#△ REF No. PART No. PART NAME, DESCRIPTION

IC11 M5218AFP-XE1 IC
 IC12 BA3308F IC, BR-S800

Q11 DTA144EK TRANSISTOR
 Q12 DTC144EK TRANSISTOR
 Q13 DTC323TK TRANSISTOR
 Q14 DTC323TK TRANSISTOR

D11 DAN202K DIODE
 D12 DAN202K DIODE
 D13 DAN202K DIODE

R36 QRSA08J-332YN RESISTOR, BR-S800 3.3kΩ, 1/10W
 R37 QRSA08J-392YN RESISTOR, BR-S800 3.9kΩ, 1/10W
 R38 QRSA08J-105YN RESISTOR, BR-S800 1MΩ, 1/10W
 R39 QRSA08J-152YN RESISTOR, BR-S800 1.5kΩ, 1/10W
 R40 QRSA08J-152YN RESISTOR, BR-S800 1.5kΩ, 1/10W

R41 QRSA08J-823YN RESISTOR, BR-S800 82kΩ, 1/10W
 R42 QRSA08J-221YN RESISTOR, BR-S800 220 Ω, 1/10W

R51 QRSA08J-222YN RESISTOR 2.2kΩ, 1/10W
 R52 QRSA08J-472YN RESISTOR 4.7kΩ, 1/10W
 R53 QRSA08J-222YN RESISTOR 2.2kΩ, 1/10W
 R56 QRSA08J-330YN RESISTOR 33 Ω, 1/10W
 R57 QRSA08J-103YN RESISTOR 10kΩ, 1/10W
 R60 QRSA08J-103YN RESISTOR 10kΩ, 1/10W

R61 QRSA08J-330YN RESISTOR 33 Ω, 1/10W
 R64 QRSA08J-104YN RESISTOR 100kΩ, 1/10W
 R65 QRSA08J-104YN RESISTOR 100kΩ, 1/10W
 R66 QRSA08J-104YN RESISTOR 100kΩ, 1/10W
 △ R67 QRZ0077-101X FUSIBLE RESISTOR 100 Ω, 1/4W
 R68 QRSA08J-104YN RESISTOR 100kΩ, 1/10W

VR11 PGZ01964 V RESISTOR, BR-S800
 VR12 PGZ01964 V RESISTOR, BR-S800
 VR13 PGZ01964 V RESISTOR, BR-S800
 VR14 PGZ01964 V RESISTOR, BR-S800
 VR15 PGZ01966 V RESISTOR
 VR16 PGZ01965 V RESISTOR

R171 QRSA08J-121YN RESISTOR 120 Ω, 1/10W
 R172 QRSA08J-121YN RESISTOR 120 Ω, 1/10W
 R173 QRSA08J-121YN RESISTOR 120 Ω, 1/10W
 R174 QRSA08J-121YN RESISTOR 120 Ω, 1/10W
 R175 QRSA08J-121YN RESISTOR 120 Ω, 1/10W
 R176 QRSA08J-121YN RESISTOR 120 Ω, 1/10W

R181 QRSA08J-0R0Y RESISTOR 0 Ω, 1/10W
 R182 QRSA08J-0R0Y RESISTOR 0 Ω, 1/10W
 R183 QRSA08J-0R0Y RESISTOR 0 Ω, 1/10W
 R184 QRSA08J-0R0Y RESISTOR 0 Ω, 1/10W
 R185 QRSA08J-0R0Y RESISTOR 0 Ω, 1/10W
 R186 QRSA08J-0R0Y RESISTOR 0 Ω, 1/10W
 R187 QRSA08J-0R0Y RESISTOR 0 Ω, 1/10W
 R188 QRSA08J-0R0Y RESISTOR 0 Ω, 1/10W
 R189 QRSA08J-0R0Y RESISTOR 0 Ω, 1/10W

#△	REF No.	PART No.	PART NAME, DESCRIPTION
	R190	QRSA08J-0R0Y	RESISTOR 0Ω,1/10W
	C7	QCTA1CH-101	CAPACITOR, BR-S800 100pF,16V
	C8	QER61HM-105	E CAPACITOR, BR-S800 1μF,50V
	C9	QER61CM-476	E CAPACITOR, BR-S800 47μF,16V
	C10	QCTA1CH-101	CAPACITOR, BR-S800 100pF,16V
	C11	QCTA1CH-121	CAPACITOR, BR-S800 120pF,16V
	C12	QER61CM-106	E CAPACITOR, BR-S800 10μF,16V
	C13	QCTA1CH-101	CAPACITOR, BR-S800 100pF,16V
	C14	QCYA1HK-103	CAPACITOR, BR-S800 0.01μF,50V
	C15	QCYA1HK-103	CAPACITOR, BR-S800 0.01μF,50V
	C52	QCYA1HK-103	CAPACITOR 0.01μF,50V
	C53	QER61AM-476	E CAPACITOR 47μF,10V
	C57	QER61CM-475	E CAPACITOR 4.7μF,16V
	C58	QER61CM-475	E CAPACITOR 4.7μF,16V
	C59	QER61CM-476	E CAPACITOR 47μF,16V
	C60	QER61AM-476	E CAPACITOR 47μF,10V
	SW1	PGZ01478	SLIDE SWITCH
	SW2	PGZ00470-02	SLIDE SWITCH
	SW3	PGZ00469-02	SLIDE SWITCH
	SW4	PGZ00469-02	SLIDE SWITCH, BR-S800
	SW5	PGZ00470-02	SLIDE SWITCH
	SW6	PGZ00469-02	SLIDE SWITCH
△	K1	PGZ00354	FERRATE BEADS
△	K2	PGZ01976	FERRATE BEADS
△	K3	PGZ01976	FERRATE BEADS
△	K4	PGZ00354	FERRATE BEADS
△	K5	PGZ01976	FERRATE BEADS
	K6	PGZ01976	N FILTER
	K7	PGZ01976	N FILTER
	K8	PGZ01976	N FILTER
△	BKT1	PRD44290-01-01	BRACKET, (FOR VR), BR-S800
	J1	PU60664	MINI JACK
	J2	PU60664-3	MINI JACK, BR-S800
	J3	PGZ01516	FEMALE CONNECTOR
	J4	PGZ01947	1P JACK
	SCW1	SDSF3010Z	SCREW
	SPC1	PU60010	SPACER, × 2
△	VA1	PU49624-2	VARISTOR
	CN11	PU60711-118	CONNECTOR
	CN12	PU60711-124	CONNECTOR
△	CP1	ICP-F25	CIRCUIT PROTECTOR

#△	REF No.	PART No.	PART NAME, DESCRIPTION
			OPERATION-SW BOARD ASSEMBLY <34>
	PWBA	PRK10151A3-02	OPE.-SW. BOARD ASSY, BR-S800
	PWBA	PRK10151B3-02	OPE.-SW. BOARD ASSY, BR-S500
	IC21	M50255P	IC
	Q21	DTB143TK	TRANSISTOR
	Q22	DTB143TK	TRANSISTOR
	Q23	DTB143TK	TRANSISTOR
	Q24	DTB143TK	TRANSISTOR
	Q25	DTB143TK	TRANSISTOR
	Q26	DTB143TK	TRANSISTOR
	Q27	DTB143TK	TRANSISTOR
	Q28	DTB143TK	TRANSISTOR
	Q29	DTC144EK	TRANSISTOR
	Q30	DTC144EK	TRANSISTOR
	Q31	DTC144EK	TRANSISTOR
	Q32	DTC144EK	TRANSISTOR
	Q33	DTC144EK	TRANSISTOR
	Q34	DTC144EK	TRANSISTOR
	Q35	DTC144EK	TRANSISTOR
	Q36	DTC144EK	TRANSISTOR
	D31	SLR-55MC3F	LE DIODE
	D32	SLR-55MC3F	LE DIODE
	D33	SLR-55MC3F	LE DIODE
	D34	SLR-55MC3F	LE DIODE
	D35	SLR-55MC3F	LE DIODE
	D36	SLR-55MC3F	LE DIODE
	D37	SLR-55MC3F	LE DIODE
	D38	GL-8TR21	LE DIODE
	D39	GL-8TR21	LE DIODE, BR-S800
	D40	GL-8TR21	LE DIODE, BR-S800
	D41	GL-8TR21	LE DIODE
	D42	GL-8TR21	LE DIODE
	D43	GL-8TR21	LE DIODE
	D44	GL-8TR21	LE DIODE
	D45	GL-8TR21	LE DIODE
	D46	GL-8TR21	LE DIODE
	D61	DAN202K	DIODE
	D62	DAN202K	DIODE
	D63	DAN202K	DIODE
	D64	DAN202K	DIODE
	D65	DAN202K	DIODE
	D66	DAN202K	DIODE
	D67	DAN202K	DIODE
	D68	DAN202K	DIODE
	D81	DAN202K	DIODE
	D82	DAN202K	DIODE
	D83	DAN202K	DIODE
	D84	DAN202K	DIODE
	D85	DAN202K	DIODE

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
D91	LB-302VF2	LE DIODE	
D92	LB-302VF2	LE DIODE	
D93	LB-302VF2	LE DIODE	
R71	QRSA08J-221YN	RESISTOR	220 Ω, 1/10W
R72	QRSA08J-221YN	RESISTOR	220 Ω, 1/10W
R73	QRSA08J-221YN	RESISTOR	220 Ω, 1/10W
R74	QRSA08J-221YN	RESISTOR	220 Ω, 1/10W
R75	QRSA08J-221YN	RESISTOR	220 Ω, 1/10W
R76	QRSA08J-221YN	RESISTOR	220 Ω, 1/10W
R77	QRSA08J-221YN	RESISTOR	220 Ω, 1/10W
R78	QRSA08J-221YN	RESISTOR	220 Ω, 1/10W
R79	QRSA08J-472YN	RESISTOR	4.7kΩ, 1/10W
R80	QRSA08J-472YN	RESISTOR	4.7kΩ, 1/10W
R81	QRSA08J-472YN	RESISTOR	4.7kΩ, 1/10W
R82	QRSA08J-472YN	RESISTOR	4.7kΩ, 1/10W
R83	QRSA08J-472YN	RESISTOR	4.7kΩ, 1/10W
R84	QRSA08J-472YN	RESISTOR	4.7kΩ, 1/10W
R85	QRSA08J-472YN	RESISTOR	4.7kΩ, 1/10W
R86	QRSA08J-472YN	RESISTOR	4.7kΩ, 1/10W
R87	QRSA08J-101YN	RESISTOR	100 Ω, 1/10W
R88	QRSA08J-101YN	RESISTOR	100 Ω, 1/10W
R91	QRSA08J-221YN	RESISTOR	220 Ω, 1/10W
R92	QRSA08J-221YN	RESISTOR	220 Ω, 1/10W
R93	QRSA08J-221YN	RESISTOR	220 Ω, 1/10W
R94	QRSA08J-221YN	RESISTOR	220 Ω, 1/10W
R95	QRSA08J-221YN	RESISTOR	220 Ω, 1/10W
R96	QRSA08J-221YN	RESISTOR	220 Ω, 1/10W
R97	QRSA08J-221YN	RESISTOR	220 Ω, 1/10W
R98	QRSA08J-221YN	RESISTOR	220 Ω, 1/10W
C71	QCYA1HK-103	CAPACITOR	0.01 μF, 50V
SW11	PESW0525-02Z	TACT SWITCH	
SW12	PESW0525-02Z	TACT SWITCH	
SW13	PESW0525-02Z	TACT SWITCH	
SW14	PESW0525-02Z	TACT SWITCH	
SW15	PESW0525-02Z	TACT SWITCH	
SW16	PESW0525-02Z	TACT SWITCH	
SW17	PESW0525-02Z	TACT SWITCH	
SW18	PESW0525-02Z	TACT SWITCH	
SW19	PESW0525-02Z	TACT SWITCH	
SW20	PESW0525-02Z	TACT SWITCH	
SW21	PESW0525-02Z	TACT SWITCH, BR-S800	
SW22	PESW0525-02Z	TACT SWITCH, BR-S800	
SW23	PESW0525-02Z	TACT SWITCH	
SW24	PESW0525-02Z	TACT SWITCH	
HD1	PQ43191	LED HOLDER, × 9(S800), × 7(S500)	
SPC1	PU50633-3	LED SPACER, × 7	
SPC2	PRD44204	LED SPACER, × 3	
CN21	PU60711-118	CONNECTOR	
CN22	PU60910-6	CONNECTOR	

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
OPERATION-DIAL BOARD ASSEMBLY <35>			
PWBA	PRK10151A4-02	OPERATION-DIAL BOARD ASSY	
SW31	PGZ00153-1-1	ROTARY CODE SWITCH	
REAR BOARD ASSEMBLY <40>			
PWBA	PRK20234E-01	REAR BOARD ASSY	
PWBA	PRK20234F-01	REAR BOARD ASSY	
SCW1	SDSF3010R	SCREW, × 8(S800), × 6(S500)	
D1	RD10ES-T1B1	ZENER DIODE, BR-S800	
D2	RD10ES-T1B1	ZENER DIODE, BR-S800	
D3	RD10ES-T1B1	ZENER DIODE, BR-S800	
D4	RD10ES-T1B1	ZENER DIODE, BR-S800	
D5	RD10ES-T1B1	ZENER DIODE	
D6	RD10ES-T1B1	ZENER DIODE	
D7	RD10ES-T1B1	ZENER DIODE	
D8	RD10ES-T1B1	ZENER DIODE	
D9	RD10ES-T1B1	ZENER DIODE, BR-S800	
D10	RD10ES-T1B1	ZENER DIODE, BR-S800	
D11	RD10ES-T1B1	ZENER DIODE, BR-S800	
D12	RD10ES-T1B1	ZENER DIODE, BR-S800	
D13	RD10ES-T1B1	ZENER DIODE	
D14	RD10ES-T1B1	ZENER DIODE	
D15	RD10ES-T1B1	ZENER DIODE	
D16	RD10ES-T1B1	ZENER DIODE	
D17	RD10ES-T1B1	ZENER DIODE	
D18	RD10ES-T1B1	ZENER DIODE	
D19	RD10ES-T1B1	ZENER DIODE	
D20	RD10ES-T1B1	ZENER DIODE	
D21	RD10ES-T1B1	ZENER DIODE, BR-S800	
D22	RD10ES-T1B1	ZENER DIODE, BR-S800	
D23	RD10ES-T1B1	ZENER DIODE	
D24	RD10ES-T1B1	ZENER DIODE	
D25	RD10ES-T1B1	ZENER DIODE	
D26	RD10ES-T1B1	ZENER DIODE	
D27	RD10ES-T1B1	ZENER DIODE, BR-S800	
D28	RD10ES-T1B1	ZENER DIODE, BR-S800	
D29	RD10ES-T1B1	ZENER DIODE, BR-S800	
D30	RD10ES-T1B1	ZENER DIODE, BR-S800	
D31	RD10ES-T1B1	ZENER DIODE	
D32	RD10ES-T1B1	ZENER DIODE	
D33	RD10ES-T1B1	ZENER DIODE	
D34	RD10ES-T1B1	ZENER DIODE	
R1	QRD161J-750	RESISTOR	5Ω, 1/6W

#△ REF No.	PART No.	PART NAME, DESCRIPTION
C1	QCF31HP-103	CAPACITOR 0.01 μ F,50V
SW1	PGZ00469-02	SLIDE SWITCH, BR-S500
SW2	PGZ00470-02	SLIDE SWITCH, BR-S800
BKT1	PRD20482-06	PANEL, BR-S500
JA1	PGZ01531	S-TERMINAL CONNECTOR, BR-S800
JA2	PGZ01531	S-TERMINAL CONN
JA3	PGZ01950	3P BNC CONNECTOR, BR-S500
JA3	PGZ01948	4P BNC CONNECTOR, BR-S800
JA4	PGZ01947	1P JACK
JA5	PGZ01949	2P JACK, BR-S500
JA5	PGZ01946	4P JACK, BR-S800
JA6	PGZ01949	2P JACK, BR-S500
JA6	PGZ01946	4P JACK, BR-S800
SCW1	SDSF3010R	SCREW, $\times 8$ (S800), $\times 6$ (S500)
SCW2	SDST3008Z	SCREW, $\times 2$
SCW3	SDSF3012R	SCREW
SCW4	WBS3000N	WASHER
CN1	PGZ01942-10	CONNECTOR
CN2	PGZ01942-10	CONNECTOR
CN3	PGZ01942-10	CONNECTOR
CN4	PGZ01942-10	CONNECTOR

END SENSOR BOARD ASSEMBLY <50>

PWBA	PRK20225B1-01	END SENS BOARD ASSY, BR-S500
PWBA	PRK20225A1-02	END SENS BOARD ASSY, BR-S800
Q1	2SD1423(RS)	TRANSISTOR, BR-S800
Q2	2SB1030R,S	TRANSISTOR, BR-S800
Q3	DTC124ES	TRANSISTOR, BR-S800
D1	HZ3BLL	DIODE, BR-S800
R1	QRD161J-223	RESISTOR, BR-S800 22k Ω ,1/6W
R2	QRD161J-6R8	RESISTOR, BR-S800 6.8 Ω ,1/6W
R3	QRD161J-473	RESISTOR, BR-S800 47k Ω ,1/6W
R4	QRD161J-472	RESISTOR, BR-S800 4.7k Ω ,1/6W
C1	QFN31HJ-332	CAPACITOR, BR-S800 0.0033 μ F,50V
C2	QFN31HJ-102	CAPACITOR, BR-S800 0.001 μ F,50V
C3	QFP42AJ-333	CAPACITOR, BR-S800 0.033 μ F,100V
C4	QETC1CM-106	E CAPACITOR, BR-S800 10 μ F,16V
PS1	PU61321-1-1	TAPE SENSOR

#△ REF No.	PART No.	PART NAME, DESCRIPTION
△ T1	PU60321	OSC TRANSFORMER, BR-S800
CN1	PU59555-2	CONNECTOR, BR-S800
CN2	PU59555-5	CONNECTOR

REC SAFETY BOARD ASSEMBLY <51>

PWBA	PRK20225A2-01	REC SAFE BOARD ASSY, BR-S800
SW1	PU61319	REC SAFETY SWITCH, BR-S800
CN3	PU59555-102	CONNECTOR, BR-S800

S-SWITCH BOARD ASSEMBLY <52>

PWBA	PRK20225A4	S-SWITCH BOARD ASSY, BR-S800
SW1	PU61008	CASSETTE SWITCH, BR-S800
CN4	PU59555-102	CONNECTOR, BR-S800

MODE MOTOR BOARD ASSEMBLY <53>

PWBA	PRK20225A3	MODE MOTOR BOARD ASSY
C5	QCF31HP-223	CAPACITOR 0.022 μ F,50V
CN5	PU59555-2	CONNECTOR

CASSETTE HOUSING BOARD ASSEMBLY <54>

PWBA	PRK20255A-01	HOUSING BOARD ASSY
Q1	PN268VI	PHOTO TRANSISTOR
SW1	YU40177-2	PUSH SWITCH
SW2	YU40177-2	PUSH SWITCH
CN1	PU59555-106	CONNECTOR

5 5 5 6 6 0 6 1

#△ REF No. PART No. PART NAME, DESCRIPTION

MECHA-TERMINAL BOARD ASSEMBLY <55>

PWBA	PRK20225A5	MECHA TERMINAL BOARD ASSY
CN6	PU59555-9	CONNECTOR
CN7	PU59555-2	CONNECTOR
CN8	PU59555-2	CONNECTOR
CN9	PU59555-2	CONNECTOR
CN10	PU59555-3	CONNECTOR

A/C HEAD BOARD ASSEMBLY <56>

PWBA	PRK20225A6	A/C HEAD BOARD ASSY
CN11	PU59555-111	CONNECTOR

PRIMARY BOARD ASSEMBLY <60>

PWBA	PRK10163A1	PRIMARY BOARD ASSY
△ C2	QCZ9016-222M	CAPACITOR 0.0022 μ F
△ C3	QCZ9016-222M	CAPACITOR 0.0022 μ F
CL1	PU57505	FUSE CLIP, × 2
J5	PU60894-103	TERMINAL
J6	PU60894-103	TERMINAL
J7	PU60894-103	TERMINAL
△ LF002	PGZ02011	LINE FILTER
CN1	PGZ01956-002	CONNECTOR

SWITCHING REG. BOARD ASSEMBLY <61>

PWBA	PRK10163A2	SW. REGULATOR BOARD ASSY
IC1	FA5311P	IC
IC7	BA10358F	IC

#△ REF No. PART No. PART NAME, DESCRIPTION

Q1 2SK1217-01 FE TRANSISTOR

Q37 2SC4081(QRS) TRANSISTOR

D1	AU01	FR DIODE
D2	AU01	FR DIODE
D3	RD27ES-T1B4	ZENER DIODE
D4	RD5.1ES-T1B3	ZENER DIODE
D5	1SS133	DIODE
D6	RD24ES-T1B3	ZENER DIODE
D7	1SR153-200-T2	FR DIODE

D20 FML-12S FR DIODE

D24	FMB-24	BARRIER DIODE
D27	1SR153-200-T2	FR DIODE
D29	FML-12S	FR DIODE
D30	HZ22CP	ZENER DIODE

D31	FML-12S	FR DIODE
D33	FMB-24	BARRIER DIODE
D36	1SS133	DIODE
D37	1SS133	DIODE
D38	RD6.2ES-T1B3	ZENER DIODE

DA1 RBV-404 DIODE

R1	8D-13	POWER TH	
R2	QRD161J-184	RESISTOR	180kΩ, 1/6W
R3	QRD161J-154	RESISTOR	150kΩ, 1/6W
R4	QRG032J-104	OMF RESISTOR	100kΩ, 3W
R5	QRG032J-104	OMF RESISTOR	100kΩ, 3W
R6	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W
R7	QRG01DJ-220X	OMF RESISTOR	22Ω, 1W
R8	QRD161J-221	RESISTOR	220Ω, 1/6W
R9	QRX014J-R22Z	MF RESISTOR	0.22Ω, 1W

R11	QRX014J-R27Z	MF RESISTOR	0.27Ω, 1W
R12	QRSA08J-822YN	RESISTOR	82kΩ, 1/10W
R13	QRSA08J-182YN	RESISTOR	18kΩ, 1/10W
R14	QRD161J-473	RESISTOR	47kΩ, 1/6W

R53 QRSA08J-392YN RESISTOR 39kΩ, 1/10W

R69 QRSA08J-331YN RESISTOR 330Ω, 1/10W

R76	QRD161J-471	RESISTOR	470Ω, 1/6W
R77	QRSA08J-432YN	RESISTOR	43kΩ, 1/10W
R78	QRSA08J-561YN	RESISTOR	560Ω, 1/10W

R83	QRV144F-9761AY	CMF RESISTOR	976kΩ, 1/4W
R84	QRV144F-1022AY	CMF RESISTOR	1.2kΩ, 1/4W
R85	QRSA08J-222YN	RESISTOR	22kΩ, 1/10W

R101	QRSA08J-0R0Y	RESISTOR, × 4	0Ω, 1/10W
R102	QRSA08J-0R0Y	RESISTOR	0Ω, 1/10W
R103	QRSA08J-0R0Y	RESISTOR	0Ω, 1/10W
R104	QRSA08J-0R0Y	RESISTOR	0Ω, 1/10W
R106	QRSA08J-0R0Y	RESISTOR	0Ω, 1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
R26	QRD161J-682	RESISTOR	6.8kΩ, 1/6W
R27	QRD161J-432	RESISTOR	4.3kΩ, 1/6W
R34	QRD161J-182	RESISTOR	1.8kΩ, 1/6W
R35	QRD161J-752	RESISTOR	7.5kΩ, 1/6W
R36	QRSA08J-472YN	RESISTOR	4.7kΩ, 1/10W
R37	QRX014J-R22Z	MF RESISTOR	0.22Ω, 1W
R38	QRD161J-102	RESISTOR	1kΩ, 1/6W
R39	QRD161J-752	RESISTOR	7.5kΩ, 1/6W
R40	QRSA08J-123YN	RESISTOR	12kΩ, 1/10W
R41	QVPC625-202Z	V RESISTOR	2kΩ
R42	QRSA08J-222YN	RESISTOR	2.2kΩ, 1/10W
R43	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W
R44	QRSA08J-103YN	RESISTOR	10kΩ, 1/10W
R48	QRSA08J-103YN	RESISTOR	10kΩ, 1/10W
R49	QRSA08J-822YN	RESISTOR	8.2kΩ, 1/10W
R54	QRSA08J-103YN	RESISTOR	10kΩ, 1/10W
R55	QRZ0077-470X	FUSIBLE RESISTOR	47Ω, 1/4W
R57	QRV144F-8451AY	CMF RESISTOR	8.45kΩ, 1/4W
R58	QRV144F-9761AY	CMF RESISTOR	9.76kΩ, 1/4W
R66	QRSA08J-272YN	RESISTOR	2.7kΩ, 1/10W
R67	QRD161J-182	RESISTOR	1.8kΩ, 1/6W
R68	QRD161J-752	RESISTOR	7.5kΩ, 1/6W
R70	QRX014J-R22Z	MF RESISTOR	0.22Ω, 1W
R71	QRD161J-102	RESISTOR	1kΩ, 1/6W
R72	QRD161J-752	RESISTOR	7.5kΩ, 1/6W
R73	QRSA08J-822YN	RESISTOR	8.2kΩ, 1/10W
R74	QVPC625-202Z	V RESISTOR	2kΩ
R75	QRSA08J-222YN	RESISTOR	2.2kΩ, 1/10W
R79	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W
R80	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W
R81	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W
R82	QRSA08J-0R0Y	RESISTOR	0Ω, 1/10W
R105	QRSA08J-0R0Y	RESISTOR	0Ω, 1/10W
C22	QCYA1HK-102	CAPACITOR	0.001μF, 50V
C23	QETB1CM-108	E CAPACITOR	1000μF, 16V
C24	QCFA1HZ-103	CAPACITOR	0.01μF, 50V
C30	QCYA1HK-102	CAPACITOR	0.001μF, 50V
C31	QETC0JM-477	E CAPACITOR	470μF, 6.3V
C32	QCFA1HZ-103	CAPACITOR	0.01μF, 50V
C35	QCFA1HZ-103	CAPACITOR	0.01μF, 50V
C36	QETC1EM-475	E CAPACITOR	4.7μF, 25V
C37	QCFA1HZ-103	CAPACITOR	0.01μF, 50V
C38	QETC1EM-475	E CAPACITOR	4.7μF, 25V
C47	QETC1CM-227	E CAPACITOR	220μF, 16V
C48	QCFA1HZ-103	CAPACITOR	0.01μF, 50V
C55	QCFA1HZ-103	CAPACITOR	0.01μF, 50V
C56	QETC0JM-476	E CAPACITOR	47μF, 6.3V
C57	QETC0JM-227	E CAPACITOR	220μF, 6.3V
C58	QCFA1HZ-103	CAPACITOR	0.01μF, 50V
C60	QETC0JM-226	E CAPACITOR	22μF, 6.3V

#△ REF No.	PART No.	PART NAME, DESCRIPTION
HS1	PRD31023	HEAT SINK
SCW1	SDSP3006Z	SCREW
SCW2	SDSP3006Z	SCREW, × 5
TP1	SQMX001-001Z	TEST PIN, × 2 (TP1, TP2)
CN4	PU59555-107	CONNECTOR
CN5	PU59555-105	CONNECTOR
CN6	PU59555-106	CONNECTOR

LINE FILTER BOARD ASSEMBLY <64>

PWBA	PRK10163A4	LINE FILTER BOARD ASSY
△ C001	QFZ9022-333	MM CAPACITOR 0.033μF, 250V
△ C002	QFZ9022-333	MM CAPACITOR 0.033μF, 250V
△ LF001	PELN0678	LINE FILTER

DRUM BOARD <94>

PWB	PRK30121	UPPER DRUM BOARD
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CONNECTOR BOARD ASSEMBLY <95>

PWBA	PRK30122A	CONNECTOR BOARD ASSY
CN1	YU40106-13	CONNECTOR
CN2	PU58250-14	CONNECTOR

SECTION 7 TECHNICAL INFORMATION

7.1 HOUR METER INDICATIONS

7.1.1 Outline

This model is capable of indicating the following data in the on-screen display besides running hours of the drum motor.

- (1) Total operation (power-on) hours
(POWER HOUR METER)
- (2) Running hours of capstan motor (CAP HOUR METER)
- (3) Running hours of reel motor (REEL HOUR METER)
- (4) Number of switching-on times (POWER ON TIMES)
- (5) Number of loading times (LOADING TIMES)
- (6) Number of ejection times (EJECT TIMES)
- (7) Number of times of head cleaner operation
(HEAD CLEANING TIMES)
- (8) Version No. of the CPU program (XXX ROM Ver.)

Those data are shown in the counter display on the front panel and the on-screen display.

7.1.2 Operation procedure

- (1) Without any cassette inserted, press the EJECT and MENU buttons at the same time.
- (2) The version number of the EP-ROM of the SYSCON board appears in the counter display.
- (3) Every time the IN/+SHIFT or the OUT/-SHIFT button is pressed, the displayed item changes one after another as shown in the right column. Detail of each display is as follows.

<Program version display>

59 01 01

Version No. of program

ID No. of CPU

01; SYSCON
10; M-CTL
15; AUDIO
20; JVC 45 PIN(SA-K28EA)
21; RS-232C(SA-K27EA)
22; RS-422(SA-K26E)
40; Time code(SA-R50E)
80; DNR(SA-N50E)

Board name

Sy: SYSCON board
SE: SERVO/M-CTL board
AU: FM AUDIO board
S1: Board connected to the slot-1
S2: Board connected to the slot-1
S3: Board connected to the slot-2
S4: Board connected to the slot-2

<Hour meter display>

PX 01 01

Hours (unit: hour) or
Number of operation times
(unit: 100 times)

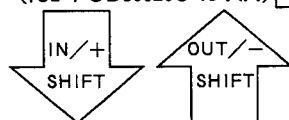
Item of indication

- (4) To reset the display to the original indication, press the MENU button once to reset it to the MENU SETTING display or press it one more again to reset it to the TAPE COUNTER display.

<Examples of counter display>

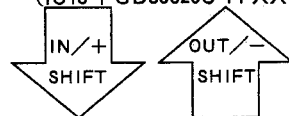
590 101

SYSCON ROM version.
(IC2 PGD30620C-15-XX)



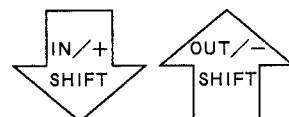
SE 1001

M-CTL ROM version
(IC18 PGD30620C-14-XX)



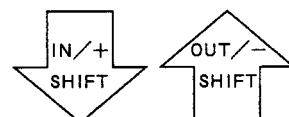
S 12001

SLOT-1 ROM version



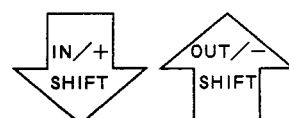
S22 101

SLOT-1 ROM version



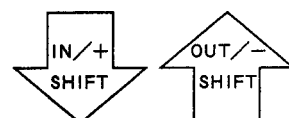
S32201

SLOT-2 ROM version



S44001

SLOT-2 ROM version



801511

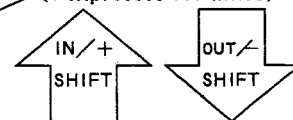
AUDIO ROM version

Note: The program version number of IC9 (M37451E8-XXXXFP) of the FM AUDIO board is not shown in its part number. To know the part number of IC9 from the version number appearing in the display, use the reference table collating part numbers and version numbers with each other.

"504" → Version "11"
"505" → Version "20"

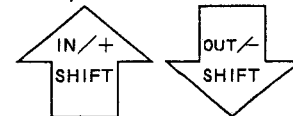
Note: In the on-screen display, the number of operation times is indicated at a unit of one time.

Xc0001
Number of times of head cleaner operations
(1 expresses 100 times)



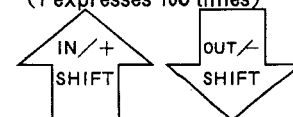
EJ0001

Number of ejection times
(1 expresses 100 times)



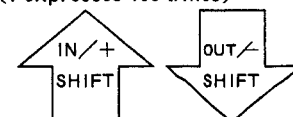
Ld0001

Number of loading times
(1 expresses 100 times)



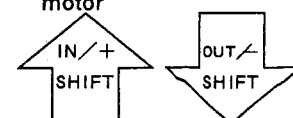
Po0001

Number of switching-on times
(1 expresses 100 times)



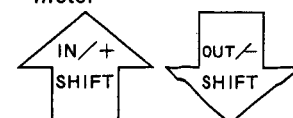
rh0001

Running hours of reel motor



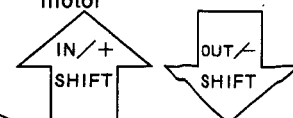
ch0001

Running hours of capstan motor



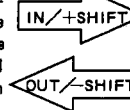
dh0001

Running hours of drum motor



Px0001

Total operation
(power-on) hours



7.2 SERVICE MENU

7.2.1 Outline

The service menu of this model includes the following functions.

- (1) To set menu switches for servicing.
- (2) To register and call user setting of menu switches.
- (3) To reset menu switch setting to the initial setting at factory shipment.
- (4) To show the history of warnings.

7.2.2 Access procedure to service menu

- (1) Take the cassette tape out of the set and then turn off the power switch.
- (2) Turn on the power switch again and press the EJECT and STOP buttons simultaneously within 2 seconds after the counter display goes on.
- (3) "OPEn" appears in the counter display.
- (4) Press the IN/+SHIFT button to show a desired menu.



OPEN

Menu to open the service menu switch.



ENTER

Menu to register user setting of menu switch.



CALL

Menu to call up registered menu switch setting.



RESET

Menu to reset the menu switch to the initial setting at factory shipment.



For factory use.



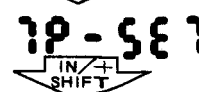
ERROR CALL

Menu to show the history of warnings.

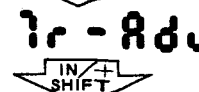


ERROR CLEAR

Menu to reset data of the warning history.



For factory use.



TRACKING ADJUSTMENT

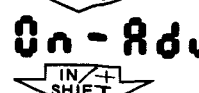
Menu to adjust tracking preset.



For factory use.



For factory use.



ON-SCREEN ADJUSTMENT

Menu for adjustment of the on-screen circuit.



The display returns to the OPEN menu. Continuous pressing of the IN/+SHIFT button shows the above service menus repeatedly.

7.2.3 Operation procedure

(1) Menu switch setting for service use

Besides the menu switches explained in the instructions, there are other menu switches for service use provided in this set. This subsection explains procedures to change the setting of those menu switches.

- 1) Access the service menu and get "OPEn" appearing in the counter display. (Refer to 7.2.2.)
- 2) Press the SET button on the front panel and then press the MENU button. All menu switches will be opened.
- 3) With the IN/+SHIFT and the OUT/-SHIFT buttons, access the menu number to be desired to change on the counter display.
- 4) Change the setting with the SET button.
- 5) To quit or cancel the service mode, press the MENU button.

(2) Registering procedure of user setting of Menu SW

- 1) Access the service menu and get "EnTEr" appearing in the counter display. (Refer to 7.2.2.)
- 2) Press the SET button on the front panel and the current menu switch setting is registered.

(3) Calling procedure of user setting of Menu SW

- 1) Access the service menu and get "CALL" appearing in the counter display. (Refer to 7.2.2.)
- 2) Press the SET button on the front panel and the menu switch setting is reset as it was registered in the above item (2) 'Registering procedure of user setting of menu switches'.

(4) Initializing procedure of Menu switch setting as it was set at factory shipment

- 1) Access the service menu and get "rESEt" appearing in the counter display. (Refer to 7.2.2.)
- 2) Press the SET button on the front panel and the menu switch setting is reset to the initial setting at factory shipment.

(5) Tracking preset adjustment mode

The tracking preset adjustment is necessary to obtain the optimum tracking as the tracking control knob is set at the center click position, since there is irregularity in the characteristics of variable resistors used for tracking adjustment. The tracking preset adjustment of this model is so simplified compared with previous models as just to store the output voltage with the tracking control being set at the center click position in the memory of the microprocessor.

- 1) Access the service menu and get "Tr-Adj" appearing in the counter display. (Refer to 7.2.2.)
- 2) Set the tracking control knob at the center click position.
- 3) Press the SET button, and the microprocessor memorizes the output voltage of the tracking control.

(6) On-screen adjustment mode

The on-screen adjustment mode is used to adjust the oscillation frequency of the crystal used in the on-screen circuit. Previous models require to shortcircuit test points for this adjustment, however, this model is so improved that such troublesome shortcircuiting is replaced by this mode.

(7) Warning history clearing procedure

This model stores data of the last four warning modes. Use the warning history clearing menu to clear the stored data of past warnings.

- 1) Access the service menu and get "Er-CLr" appearing in the counter display. (Refer to 7.2.2.)
- 2) Press the SET button and the stored warning data is cleared.

Note : The menu switches for servicing are not shown in the on-screen display.

[] : initial settings.

Menu No.	Item	Function	Counter	Explanation
● SERVO				
000	FRAME SERVO		0,[1],2	MENU SW-1 Initial setting : 4FIELD
001	TBC CONNECT		[0],1	MENU SW-2 Initial setting : OFF
002	OPERATION LOCK		[0],1	MENU SW-1 Initial setting : OFF
003	SYNC SELECT		0,1,2,[3]	MENU SW-1 Initial setting : AUTO
004	AUTO H PHASE		0,[1]	MENU SW-2 Initial setting : ON
● VIDEO				
100	S-VHS SELECT		0,[1]	MENU SW-1 Initial setting : AUTO
101	EDIT SELECT		[0],1,2	MENU SW-1 Initial setting : OFF(PB)
106	SWITCHING POINT	Selects drum rotation phase	[0]	6.5H
			2	2.25H (Use this setting when you want a lower switching point for closed-circuit system.)
● AUDIO				
200	Hi-Fi AUDIO REC		0,[1]	MENU SW-1 Initial setting : ON
201	NORMAL AUDIO DOLBY NR		0,[1]	MENU SW-1 Initial setting : ON
202	NORMAL AUDIO LIMITER		0,[1]	MENU SW-1 Initial setting : ON
203	AUDIO OUTPUT SELECTER		[0],2	MENU SW-2 Initial setting : SEP
204	HI-FI OUT AT SEARCH		[0],1	MENU SW-2 Initial setting : MUTE
205	AUDIO-1 REC		[0],1	MENU SW-1 Initial setting : AUDIO-1
206	AUDIO-2/LTC		[0],1	MENU SW-2* Initial setting : AUDIO-2
207	AUDIO INPUT SELECT		[0],1	MENU SW-2 Initial setting : SEP
208	AUDIO DUB SELECT		1,[2],3	MENU SW-1 Initial setting : AUDIO-2
● SYSTEM				
300	DIRECT EJECT		0,[1]	MENU SW-2 Initial setting : ENABLE
301	DIRECT SEARCH		0,[1]	MENU SW-2 Initial setting : ENABLE
302	AUTO REC PREROLL		0,[1]	MENU SW-2 Initial setting : ENABLE
303	WARNING ENABLE	Normally keep this menu to "0" side.	[0]	Warning mode is enabled.
			1	Warning mode is not enabled.
304	RECORDING INHIBIT		[0],1	MENU SW-2 Initial setting : OFF
305	REPEAT RECORDING		[0],1	MENU SW-2 Initial setting : DISABLE
306	LONG PAUSE	Long pause parameters are selected with menu item #307~#310.	[0]	Long pause function is enabled.
			1	Long pause function is not enabled.
307	LONG PAUSE TIME	With menu item #306 set to "0" (ENABLE), selects the length of time before normal Pause (STOP, STILL and REC-PAUSE) changes to Long Pause.	0	Long pause starts 1 sec. after.
			1	Long pause starts 10 sec. after.
			2	Long pause starts 30 sec. after.
			3	Long pause starts 1 min. after.
			4	Long pause starts 2 min. after.
			5	Long pause starts 3 min. after.
			6	Long pause starts 4 min. after.
			[7]	Long pause starts 5 min. after.
308	LONG PAUSE (STILL) MODE	Selects the contents of Long Pause mode. (After the time set with menu item #307 expires in Still or Record-Pause mode, the VCR operates as specified.)	[0]	Standby off mode takes place.
			2	Every time the period of time set by the menu item #307 elapses, the tape is forwarded for 2 frames. (After this operation is repeated six times, the mode is shifted to the standby off mode.)
309	LONG STOP MODE	Selects the contents of Long Pause mode. (After the time set with menu item #307 expires in Stop mode, the VCR operates as specified.)	[0]	Standby off mode takes place.
			2	Every time the period of time set by the menu item #307 elapses, the tape is forwarded for 2 frames. (After this operation is repeated six times, the mode is shifted to the standby off mode.)

* When SA-R50 is installed, this menu will change to Menu switch-1.

Table 7-2-1 (1) Table of menu switches for service use

Note : The menu switches for servicing are not shown in the on-screen display.

[] : initial settings.

Menu No.	Item	Function	Counter	Explanation
● SYSTEM				
310	STAND-BY OFF MODE	Selects the status of Standby-off mode.	0	Drum rotates, pinch roller is off.
			[1]	Drum stops, pinch roller is off.
			2	Unloading end state.
312	MODE AT TAPE END		[0],1	MENU SW-2 Initial setting : STOP(SHORT REW)
313	PB•PB/EE SELECT	Selects output signal.	[0]	In the mode set by Menu No.314 : EE
			1	Always PB output mode.
314	PB/EE MODE	With menu item #313 set to "0" (PB/EE), selects the mode in which EE signal is output.	[0]	In STOP/FF/REW mode : EE
			1	In STOP : EE
315	LOCAL FUNCTION	Selects operation button to be accepted when REMOTE SW is set to REMOTE side.	[0]	STOP/EJECT
			1	STP/FF/REW/STL/PLY/EJ
			2	All buttons are accepted.
			3	All buttons are not accepted.
316	9PIN CMD FUNCTION (SA-K26)	Selects 9-pin remote control commands that are acceptable when front panel REMOTE switch is set to LOCAL.	[0]	Accepts no command from 9-pin remote control.
			1	Accepts STOP and EJECT command only.
317	9PIN DEVICE TYPE ID (SA-K26)		[0],1,2,3	MENU SW-2 Initial setting : JVC S-VHS-1
318	TC DATA W/O TC BOARD	Selects VCR's response to 9-pin remote control when remote control requests time code data and time code board is not installed.	0	VCR returns code meaning TC MISSING.
			[1]	VCR returns substitute CTL data.
319	TAPE MAX SPEED		[0],1,2	MENU SW-2 Initial setting : ×140
320	PREROLL TIME	Selects preroll time in one-second steps from 0 to 15 seconds. (This menu is available only when receiving the PREROLL command.)	0	0 second
			[5]	5 seconds
			F	15 seconds
321	TIME REFERENCE FOR PREROLL	Selects time count reference for preroll in TC operation.	0	CTL (Preroll is possible even when TC is missing.)
			[1]	TC
322	IN POINT AUTO ENTRY (SA-K26)	Activates or defeats automatic IN point entry function when receiving the PREROLL command.	S800 S500 0 [0]	IN point is not entered automatically.
			[1] 1	IN point is entered automatically if no IN point has been previously entered.
323	MODE AFTER PREROLL	Selects the mode after preroll or cue up is completed. (This menu is available only when receiving the PREROLL or CUE UP WITH DATA command.)	[0]	STOP
			1	STILL
325	CTL COUNTER MODE	Selects the CTL counter mode.	[0]	±9H mode
			1	24H mode
327	CTL CLEAR AT EJECT	Activates or defeats automatic CTL data and IN/OUT point data reset function when cassette is ejected.	0	CTL counter is reset when cassette is ejected.
			[1]	CTL counter is not reset when cassette is ejected.
328	EDIT POINT CLEAR (SA-K26)	Activates or defeats automatic IN/OUT point data clear function after Auto edit is completed. (This menu is available only when receiving AUTO EDIT command.)	0	DISABLE
			[1]	ENABLE
329	OUT POINT RETURN (SA-K26)	Activates or defeats automatic OUT point return function after Auto edit is completed. (This menu is available only when receiving AUTO EDIT command.)	0	DISABLE
			[1]	ENABLE
330	VIDEO EDIT DELAY		[0],1	MENU SW-2 Initial setting : 8FRAMES
331	AUDIO EDIT DELAY		[0],1	MENU SW-2 Initial setting : 8FRAMES

Table 7-2-1(2) Table of menu switches for service use

Note : The menu switches for servicing are not shown in the on-screen display.

[] : initial settings.

Menu No.	Item	Function	Counter	Explanation
● SYSTEM				
333	CF SERVO LOCK REPLY	Selects information to deliver to 9-pin remote when remote control requests status of 8-field colour frame lock. (S-VHS VCR does not have 8-field colour frame servo circuit.)	0	The bit of CF SERVO LOCK is always set to "0".
			[1]	The bit of CF SERVO LOCK is set to "1" when the capstan servo is locked to 4-field colour frame.
336	NTSC/PAL	Selects PAL/NTSC.	0	NTSC
			[1]	PAL
337	SLOW MODE		0,[1]	MENU SW-2 Initial setting : STEP
338	MENU SW-2		[0],1	MENU SW-1 Initial setting : CLOSE
339	AUDIO DUB ENABLE AT LTC		[0],1	MENU SW-2* Initial setting : DISABLE
340	SEARCH SPEED		[0],1	MENU SW-2 Initial setting : ×33
343	SUB WARNING INHIBIT		[0],1	MENU SW-2 Initial setting : OFF
351	SYNCHRONIZATION		0,[1]	MENU SW-2 Initial setting : ENABLE
356	MODE AT CF UNLOCK	Selects VCR mode in cases where colour frame is unlocked when automatic editing or edit preview is started.	0	EDIT : Executes editing or edit preview.
			1	STOP : Enters STOP mode.
			[2]	RE-TRY : Re-tries up to 3 times.
● TIME-CODE (SA-R50)				
400	VITC POSITION-1		0~F,[C]	MENU SW-1 Initial setting : 19
401	VITC POSITION-2		0~F,[E]	MENU SW-1 Initial setting : 21
403	TCG REGEN MODE		[0],1,2	MENU SW-2 Initial setting : TC & UB
404	TC SOURCE AT REGEN	Selects the type of reference timecode in Internal Regen mode (with menu items #413 set to INT and #414 set to REGEN) and Auto Reader mode (with menu item #412 set to AUTO).	[0]	LTC
			1	VITC
405	LTC OUT SELECT		[0],1	MENU SW-2 Initial setting : OFF TAPE
406	U-BIT BINARY GROUP	Selects character set configuration to use TC generator's user bits.	[0]	NOT SPECIFIED : Character set configuration is not specified.
			1	ISO CHARACTER : 8-bit character set conforming to ISO646 and ISO2022 (with binary group flags at bit counts 43 and 59 in LTC; at 55 and 75 in VITC).
			2	UNASSIGNED-1 : Undefined
			3	UNASSIGNED-2 : Undefined
407	PHASE CORRECTION BIT	Selects recording of LTC phase correction bit.	0	OFF
			[1]	ON
408	VITC LINE	Selects whether VITC is recorded on the lines set with menu items #400 and #401.	[0]	VITC is recorded after lines are cleared.
			1	Lines are cleaned.
409	EXTERNAL REGEN TC		[0],1	MENU SW-2 Initial setting : LTC
410	AUTO REGEN MODE	Selects the edit mode in which time codes are recorded automatically in Regen mode regardless of menu item #414 setting. (This menu is available only when receiving AUTO EDIT command.)	[0]	ASSEMBLY + INSERT
			1	ASSEMBLY
			2	INSERT
			3	OFF
411	—	No function		
412	TIME CODE SELECT		1,2,3	MENU SW-1 Initial setting : [2] VITC(with SA-N5E) [1] LTC(w/o SA-N5E)
413	TCG SOURCE		[0],1	MENU SW-1 Initial setting : INTERNAL
414	TCG SELECT		0,[1]	MENU SW-1 Initial setting : REGEN
415	TCG MODE		[0],1	MENU SW-1 Initial setting : FREE RUN
417	VITC REC		0,1	MENU SW-1 Initial setting : [1] ON(with SA-N50E) [0] OFF(w/o SA-N5E)
418	VITC•LTC/CTL TC		[0],1	MENU SW-1 Initial setting : VITC•LTC

* When SA-R50 is installed, this menu will change to Menu switch-1.

Table 7-2-1(3) Table of menu switches for service use

Note : The menu switches for servicing are not shown in the on-screen display.

[] : initial settings.

Note : The menu switches are as follows.

Menu No.	Item	Function	Counter	Explanation
● ON-SCREEN				
500	ON-SCREEN DISPLAY		0,[1]	MENU SW-1 Initial setting : ON
501	CHAR. H POSITION	Adjusts on-screen VCR data display position in the horizontal direction.	[0]	VCR data is displayed at the rightmost position.
			1-8	Display position shifts to the left with increasing numbers.
502	CHAR. V POSITION	Adjusts on-screen VCR data display position in the vertical direction.	[0]	VCR data is displayed at the bottom of screen.
			1-8	Display position shifts up with increasing numbers.
504	INFORMATION		0,[1]	MENU SW-2 Initial setting : TIME+MODE
506	BLUE BACK	Blue back ON/OFF switch.	0	Black
			[1]	Blue
● DNR (SA-N50)				
600	TBS FREEZE		0,1,[3]	MENU SW-1 Initial setting : FREEZE-2
602	TBS/ DNR		0,[1]	MENU SW-1 Initial setting : ON
604	YNR LEVEL		0,[1],2,3	MENU SW-1 Initial setting : 1
605	CNR LEVEL		0,[1],2	MENU SW-1 Initial setting : 1
610	FORCED DNR ON (SA-N50)	Adjustment switch	[0]	NORMAL
			1	ADJUSTMENT : DNR operates even in EE mode.

Table 7-2-1(4) Table of menu switches for service use

(8) Calling procedure of warning history

This model stores the following data of past warning modes that the set entered for the last four times so as to inform the warning modes in detail.

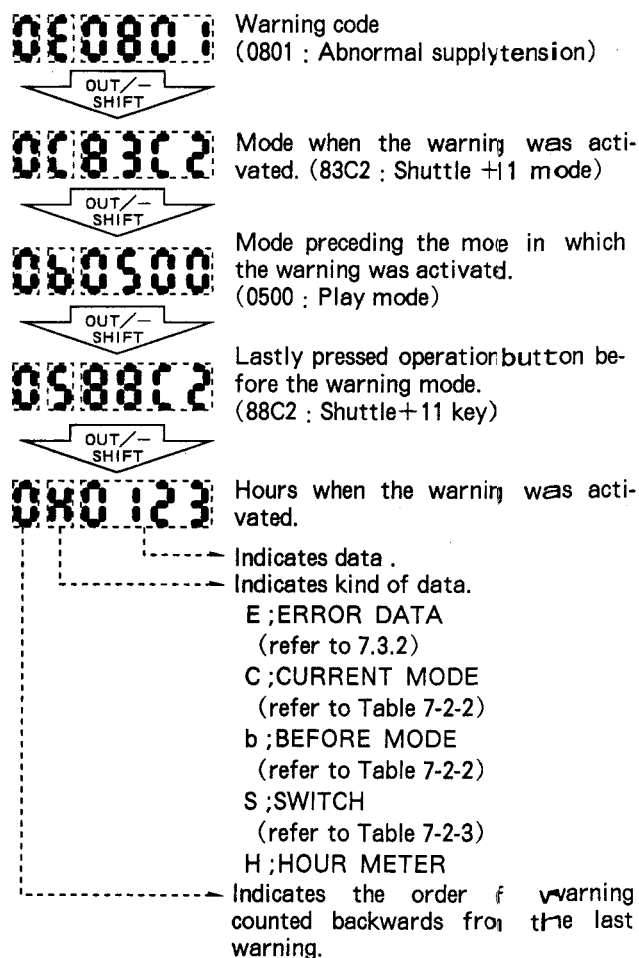
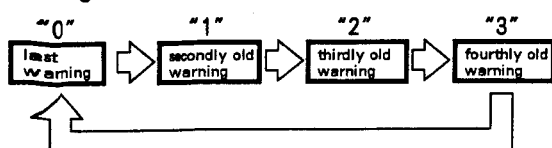
- Warning code in three figures.
- Operation mode of the set when the warning was activated.
- Operation mode of the set preceding the mode in which the warning was activated.
- Operation button that was lastly operated before the warning mode.
- Total operation (power-on) hours indicated by the hour meter when the warning was activated.

The above-mentioned information on the warning can be called by the following procedure.

- Access the service menu and get "ErCALL" appearing in the counter display. (Refer to 7.2.2)
- Press the SET button on the front panel and such the last warning code as the following will appear in the counter display.

0E0801

- Press the OUT/-SHIFT button on the front panel repeatedly and the detailed information on the last warning mode will appear in the counter display one after another.
- To access the data of older warnings, press the IN/+SHIFT button once to access the warning preceding the last one, press it again to access the thirdly old warning, and do it once more to access the fourthly old warning.



CMD	MODE	REMARK
02	— STILL	
05	— PLAY	
07	— NO CASSETTE	
09	— EJECT	
0B	— STOP-2	UNLOAD END state
0C	— STOP-3	PINCH:OFF, DRUM: OFF
0D	— STOP-4	PINCH: ON,DRUM: ON
0E	— ERROR MODE	
10	— POWER OFF	
13	— SKIP FWD	Leader tape skipping in the
14	— SKIP REV	Full-loading End state.
17	— SLOW FF	Reel Search at 33X or 17X speed, or
18	— SLOW REW	FF/REW (pinch roller off) near the end or
19	— FAST FF	Reel Search at 140X speed.
1A	— FAST REW	
1B	— SHORT FF	Leader tape skipping in the
1C	— SHORT REW	Unloading End state.
80	** REC	Including 1 byte data. *1
81	** ASSM EDIT	Including 1 byte data. *2
83	** SHUTTLE (+)	Including speed data. *3
84	** JOG (+)	Including speed data. *3
85	** VARIABLE (+)	Including speed data. *3
86	** PLAY(+)	Including speed data. *4
90	** AUDIO DUB	Including 1 byte data. *5
91	** INSERT EDIT	Including 1 byte data. *6
93	** SHUTTLE (—)	Including speed data. *3
94	** JOG (—)	Including speed data. *3
95	** VARIABLE (—)	Including speed data. *3
96	** PLAY (—)	Including speed data. *4
B3	** INTAKE	Including data to indicate the next mode. *7
B4	** HALF LOAD	
B5	** HALF UNLOAD	
B6	** LOAD	
B7	** UNLOAD	

Table 7-2-2 Mode data

CMD	KEY	REMARK
30	00 EJECT KEY	
31	00 STOP KEY	
32	00 FF KEY	
33	00 REW KEY	
34	00 STILL KEY	
37	00 EDIT KEY	
38	00 EDIT STOP KEY	
40	00 PLAY KEY	
41	00 REC+PLAY KEY	
42	00 REC+PAUSE KEY	
43	00 A.DUB+PLAY KEY	
44	00 A.DUB+STILL KEY	
45	00 STAND-BY KEY	
50	00 POWER ON KEY	
60	00 POWER OFF KEY	
87	** EE ON KEY	Containing data to select EE signal. *8
88	** SHTL(+) KEY	Containing speed data. *3
89	** JOG(+) KEY	Containing speed data. *3
8A	** VAR SRH(+) KEY	Containing speed data. *3
8B	** PLAY(+) KEY	Containing speed data. *4
97	** EE OFF KEY	Containing data to select EE signal. *8
98	** SHTL(—) KEY	Containing speed data. *3
99	** JOG(—) KEY	Containing speed data. *3
9A	** VAR SRH(—) KEY	Containing speed data. *3
9B	** PLAY(—) KEY	Containing speed data. *4

Table 7-2-3 Key data

Data added to mode commands

*1 Detailed status of REC mode is shown by the data 0.
<Data 0>

MSD				LSD			
7	6	5	4	3	2	1	0
			REC		REC PLAY	REC PAUSE	BACK SPACE

*2 Detailed status of ASSEM mode is shown by the data 0.
<Data 0>

MSD				LSD			
7	6	5	4	3	2	1	0
			ASSEM		EDIT PLAY	EDIT STILL	PRE- ROLL

*3 Tape speed is expressed by the data 0 in the following equation.

$$\text{TAPE SPEED} = 10^{\frac{\text{DATA0 [DEC]}}{64} - 2}$$

*4 Tape speed is expressed by the data 0 in the following equation.

$$\text{TAPE SPEED} = 1 \times (1 + 0.001 \times \text{DATA0 [DEC]})$$

*5 Detailed status of AUDIO DUB mode is shown by data 0.
<Data 0>

MSD				LSD			
7	6	5	4	3	2	1	0
			AUDIO DUB				PAUSE

*6 Detailed status of INSERT mode is shown by data 0.
<Data 0>

MSD				LSD			
7	6	5	4	3	2	1	0
			INSERT		EDIT PLAY	EDIT STILL	PRE- ROLL

*7 Although the next mode is indicated by the data 0 and data 1 in this command, the counter display shows the detail of the data 0 only.

<Data 0>

MSD				LSD			
7	6	5	4	3	2	1	0
	REW	FF	STOP	REC PLAY	REC STILL		EJECT

<Data 1> This data is not shown in the counter display.

MSD				LSD			
7	6	5	4	3	2	1	0
REV	FWD	STILL	PLAY		SHTL REV	SHTL STILL	SHTL FWD

*8 In this command the data 0 indicates the signal line to be used for EE operation.

<Data 0>

MSD				LSD			
7	6	5	4	3	2	1	0
			SELECT				FULL

7.3 WARNING DETECTION CIRCUIT

7.3.1 Outline

If there occurs something abnormal in operation, this set diagnose the cause by itself and stops the operation automatically.

This operation is named the warning mode, which indicates the kind of the abnormal operation in the counter display on the front panel and in the Video Monitor Out signal.

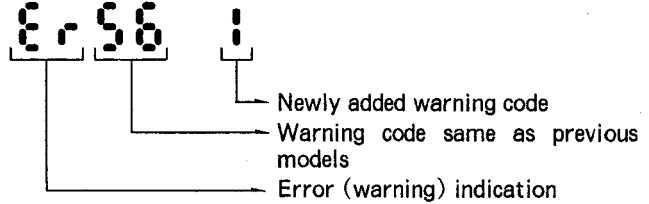
Note: When the menu No. 303 'WARNING ENABLE' is set to OFF (01), the set does not enter the warning mode.

When the set enters the AUTO OFF mode, the set can be recovered from the mode only by turning off the main switch once and turning it on again.

Although such the operation as mentioned above is carried out in previous models, this model is improved in diagnosing speed with the newly added functions of the following.

1) Warning code displayed in three figures

Compared with the display in two figures for previous models, this set indicates more detailed data of the warning with an additional digit.



2) Memory of warning history

This set stores data of past warning modes in the memory. (Refer to 7.2.3(8) 'Calling procedure of warning history'.)

7.3.2 Table of warning codes

Symbol No. . indicates part on the SERVO/M-CTL board unless otherwise indicated.

Code No.	Sensor	Detection manner	Operation	Countermeasure
----------	--------	------------------	-----------	----------------

01: Breakdown or disconnection of LED for leader tape detection

01	1	Q22	When level of pin 38 of IC21 becomes High level for 240 ms or longer. Normal level of pin 38 of IC21 is 0 V.	AUTO OFF	Replace the LED.
----	---	-----	---	----------	------------------

02: Condensation on drum

02	1	Dew sensor (IC14pin75) Characteristic of dew sensor Relative humidity Resistance value 75% 20k Ω and less 100% 200k Ω and more	When level of pin 75 of IC14 is 3 V or more. This warning mode is cancelled when level of pin 75 of IC14 becomes 2 V or less. When level of pin 75 of IC14 is 2 V to 3 V at the moment of power on, the set enters this warning mode if the last power-off was operated as the set was in the warning 02 mode. Normal level of pin 75 of IC14 is 2 V or less.	The drum motor automatically runs after the cassette is ejected. As the set is released from the dewed condition, the warning mode is cancelled and the set comes back to the normal operation mode. In the dewed condition, no cassette tape can be loaded.	If the warning mode is not cancelled, it may result from trouble of the dew sensor.
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08: Abnormal supply tension

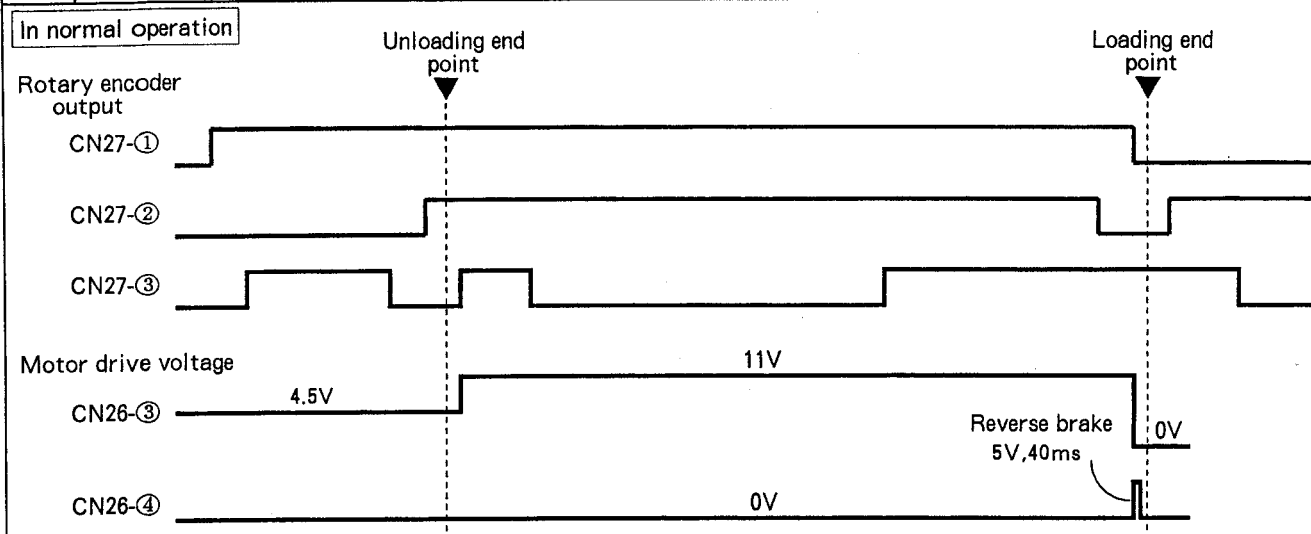
08	1	Tension sensor (TP22 or IC14pin72)	When level of pin 72 of IC14 is less than 0.2 V for 500 ms as the mechanism is in the loading end state (except in the standby off mode). Normal voltage at TP22 is as follows: In play mode : 1.85 V \pm 0.10V In standby off mode: 0 \pm 0.1 V.	AUTO OFF	Abnormal tension servo. Maladjustment of R214, R222. (This case needs adjustment of each torque of playing, loading and reversing.) Faulty reel motor. Trouble in the tape transport system.
<div></div>					

Symbol No. . indicates part on the SERVO/M-CTL board unless otherwise indicated.

Code No.	Sensor	Detection manner	Operation	Countermeasure
----------	--------	------------------	-----------	----------------

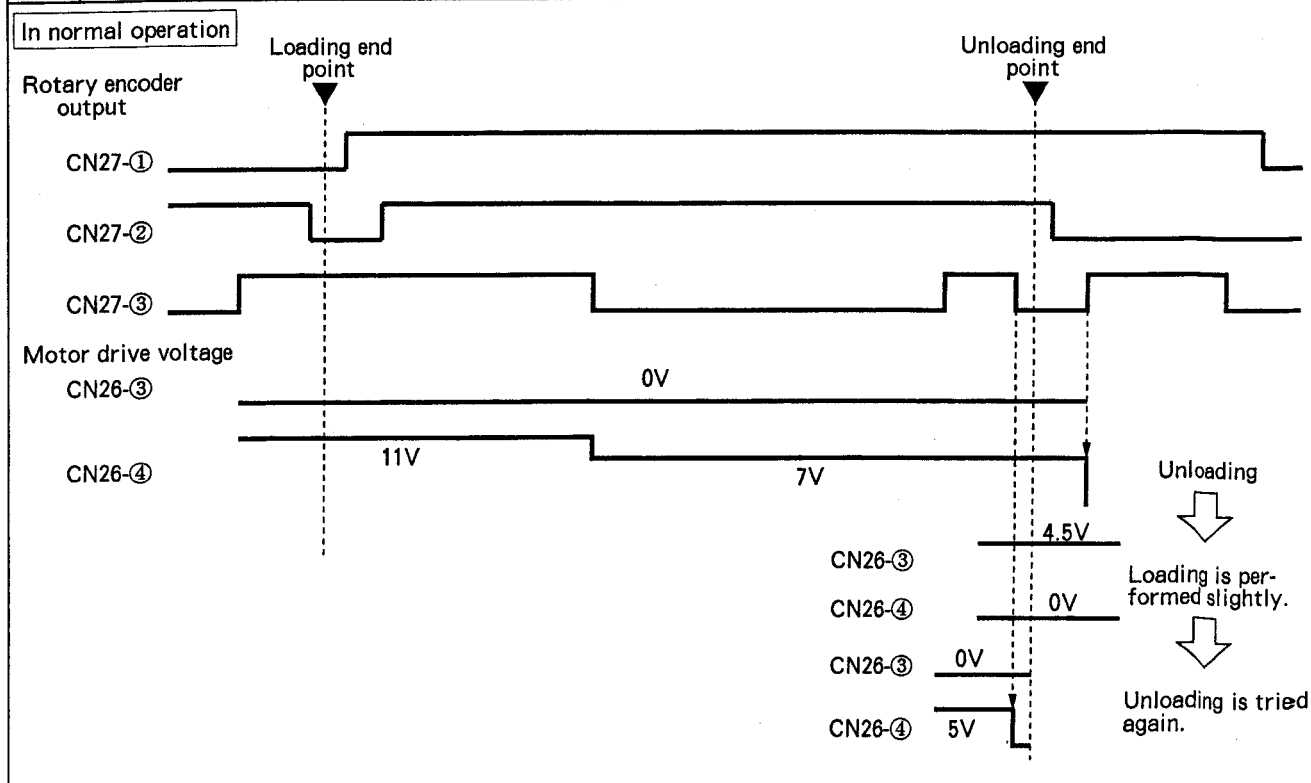
32: Loading is not carried out.

32	1	Rotary encoder (CN27-①②③)	When loading does not finish within 8 sec after it starts.	<p>Loading is cancelled and unloading is executed. Then, loading will be tried again.</p> <p>If the loading for the second time fails, too, the cassette tape is ejected.</p>	<p>Fault in rotary encoder.</p> <p>Fault in loading motor.</p> <p>Fault in IC33 MDA (TA8405S).</p> <p>Trouble in the loading mechanism.</p> <p>Faulty cassette tape.</p>
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33: Unloading is not carried out.

33	1	Rotary encoder (CN27-①②③)	When unloading does not finish within 8 sec after it starts.	<p>Unloading is cancelled and loading is executed. Then, unloading will be tried again.</p> <p>If the unloading for the second time fails, too, the set enters the AUTO OFF warning mode.</p>	<p>Fault in rotary encoder.</p> <p>Fault in loading motor.</p> <p>Fault in IC33 MDA (TA8405S).</p> <p>Trouble in the loading mechanism.</p> <p>Faulty cassette tape.</p>
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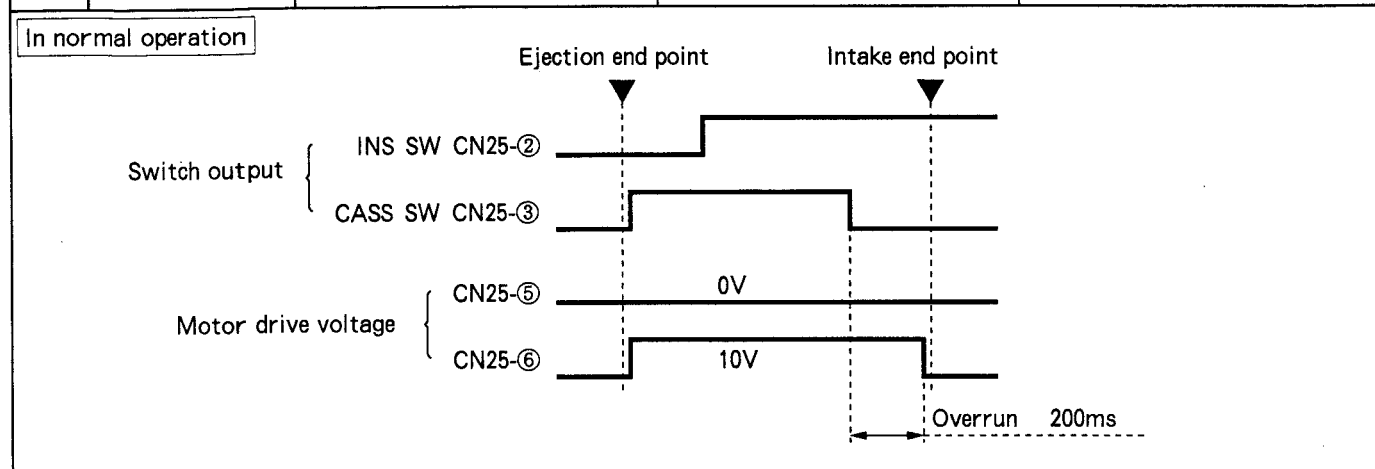


Symbol No. . indicates part on the SERVO/M-CTL board unless otherwise indicated.

Code No.	Sensor	Detection manner	Operation	Countermeasure
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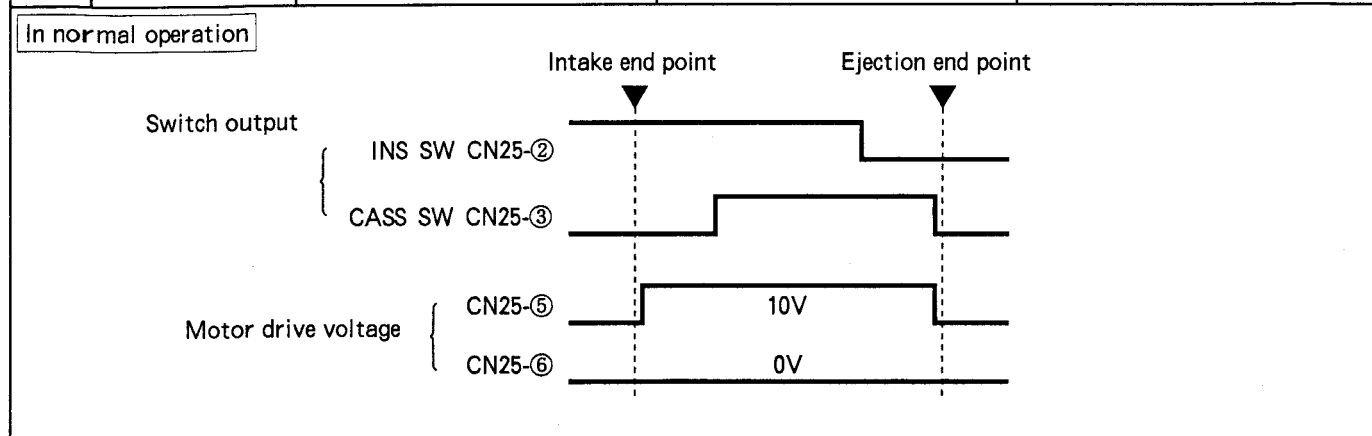
Intake operation is not completed. (No warning indication)

— —	Cassette switch (CN25-③) Insert switch (CN25-②)	When cassette tape intake operation does not finish within 3 sec.	Cassette tape is ejected. No warning indication is displayed.	Fault in cassette housing. Fault in IC33 MDA (TA8405S). Fault in cassette or insert switch. Faulty cassette tape. Abnormal orientation of LED for leader tape detection.
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41:Ejection is not completed.

41 1	Cassette switch (CN25-③) Insert switch (CN25-②)	When cassette ejection operation does not finish within 3 sec.	Ejection operation is once cancelled and the cassette tape is taken in again. Then, ejection operation is tried once more. If the ejection operation for the second time fails, the set enters the AUTO OFF warning mode.	Fault in cassette housing. Fault in IC33 MDA (TA8405S). Fault in cassette or insert switch. Faulty cassette tape.
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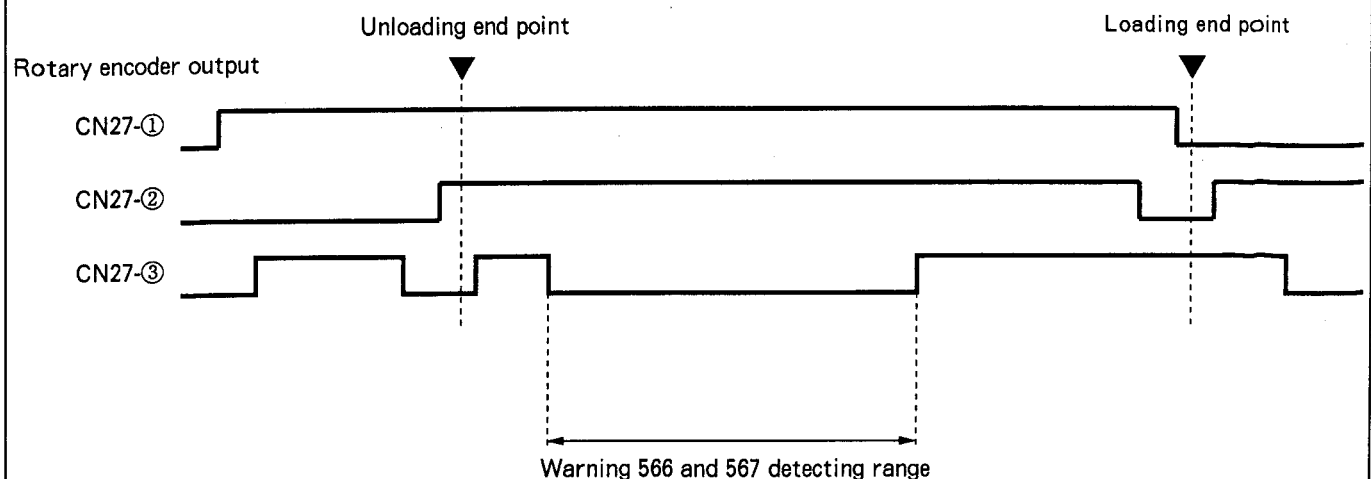


Symbol No. . indicates part on the SERVO/M-CTL board unless otherwise indicated.

Code No.	Sensor	Detection manner	Operation	Countermeasure
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56: Tape breaking

56 1	SUP. reel FG (IC14pin63)	When reel reversely runs for 3 cm and more in tape length in the Short FF/REW or Skip FWD/REV mode.	Cassette tape is ejected.	Trouble in reel servo circuit. Faulty wiring between reel motor and SERVO/M-CTL board.
56 2	TU. reel FG (IC14pin62)			
56 3	SUP. reel FG (IC14pin63)	When there are more than 40 REEL FG pulses output for the reason that reel motor runs at a high speed exceeding the specified limit with a cassette tape being inserted. Specified speed limit is: When pinch roller is on : 11X speed x 1.1 When pinch roller is off : 140X speed x 1.1. The above limits are determined by calculation of diameter of tape winding and REEL FG pulses.	Cassette tape is ejected.	Trouble in reel servo circuit. Faulty wiring between reel motor and SERVO/M-CTL board.
56 4	TU. reel FG (IC14pin62)			
56 5	Tape beginning sensor (IC21pin37) Tape end sensor (IC21pin36)	When both of tape end and tape beginning are detected for 500 ms or longer in a mode other than loading and unloading at the same time with a cassette tape being inserted. Each sensor output is 3.5 V or more in normal operation.	Cassette tape is ejected.	Trouble in tape beginning sensor and tape end sensor. Abnormal orientation of LED for leader tape detection.
56 6	SUP. reel FG (IC14pin63)	When supply reel turns around 7 times or more in unloading mode. (A turning around of supply reel outputs 120 SUP REEL FG pulses.)	Cassette tape is ejected.	Trouble in reel servo circuit. Faulty wiring between reel motor and SERVO/M-CTL board.
56 7	SUP. reel FG (IC14pin63)	When supply reel turns around 5 times or more in loading mode. (A turning around of supply reel outputs 120 SUP REEL FG pulses.)	Cassette tape is ejected.	Trouble in reel servo circuit. Faulty wiring between reel motor and SERVO/M-CTL board.



Symbol No. . indicates part on the SERVO/M-CTL board unless otherwise indicated.

Code No.	Sensor	Detection manner	Operation	Countermeasure
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57:Tape end detection

57 1	Tape end sensor (CN21-④)	When leader tape is not pulled into cassette within 3 sec in Short REW mode. Tape end sensor output in normal operation is: with main portion of tape : 3.5 V or more, with leader portion of tape : 1.5 V or less.	Cassette tape is ejected. Insert cassette tape again, and the warning display is turned out.	Trouble in reel servo circuit. Fault in tape end sensor. Abnormal orientation of LED for leader tape detection. Faulty cassette tape.
57 2	Tape end sensor (CN21-④)	When leader tape is not pulled into cassette within 3 sec in Skip REV mode.		

58:Tape beginning detection

58 1	Tape beginning sensor (CN25-④)	When leader tape is not pulled into cassette within 3 sec in Short FF mode. Tape beginning sensor output in normal operation is: with main portion of tape : 3.5 V or more, with leader portion of tape : 1.5 V or less.	Cassette tape is ejected. Insert cassette tape again, and the warning display is turned out.	Trouble in reel servo circuit. Fault in tape beginning sensor. Abnormal orientation of LED for leader tape detection. Faulty cassette tape.
58 2	Tape beginning sensor (CN25-④)	When leader tape is not pulled into cassette within 3 sec in Skip FWD mode.		

70:Drum motor is abnormal.

70 1	DRUM FG (IC14pin65)	DRUM FG pulse is not output for 2 sec or more in a mode that drum motor should be running.	AUTO OFF	Fault in wiring between drum motor and SERVO/M-CTL board. Trouble in drum servo circuit. Faulty drum motor.
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71:Capstan motor is abnormal.

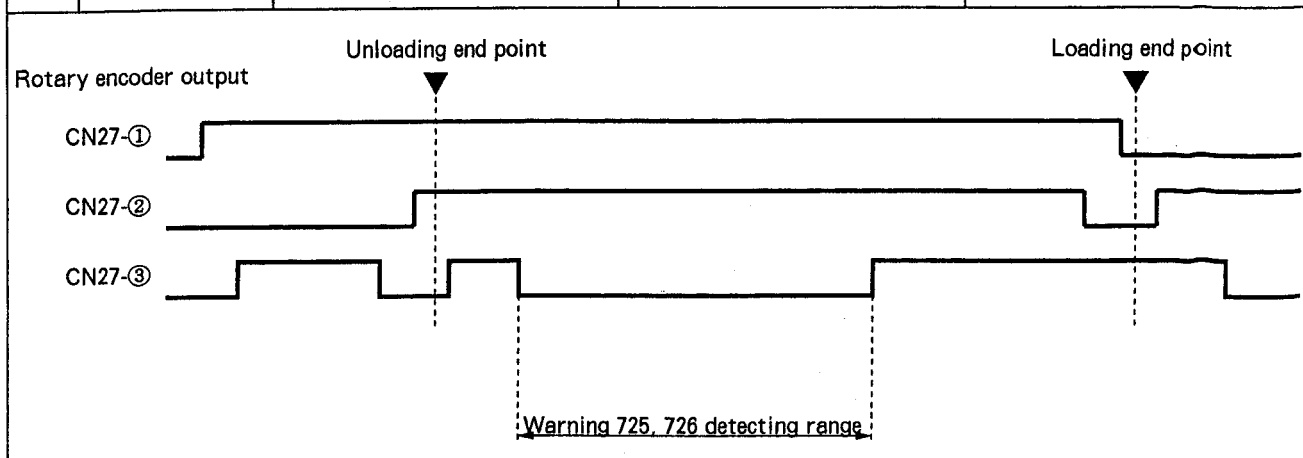
71 1	CAPSTAN FG (IC14pin64)	CAPSTAN FG pulse is not output for 1 sec or more in PLAY, CAP SEARCH or REC mode.	AUTO OFF	Fault in wiring between capstan motor and SERVO/M-CTL board. Trouble in capstan servo circuit. Faulty capstan motor.
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Symbol No. . indicates part on the SERVO/M-CTL board unless otherwise indicated.

Code No.	Sensor	Detection manner	Operation	Countermeasure
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72:Supply reel motor is abnormal.

72 1	SUP REEL FG (IC14pin63) CAPSTAN FG (IC14pin64)	Tape slackening When supply reel does not rotate nevertheless capstan motor is running. (When ratio of SUP REEL FG pulse to CAPSTAN FG pulse is 0 to 3072 or more in number.)	AUTO OFF	Trouble in reel servo circuit. Fault in wiring between reel motor and SERVO/M-CTL board. Faulty reel motor.
72 2	SUP REEL FG (IC14pin63)	Reel locking When no SUP REEL FG pulse is output in a specific period of time (4 sec to 12 sec) determined by diameter of tape winding.	AUTO OFF	Trouble in reel servo circuit. Fault in wiring between reel motor and SERVO/M-CTL board. Faulty reel motor.
72 3	SUP REEL FG (IC14pin63)	Reel rotating reversely When reel turns reversely for 3 cm in tape length in a mode other than Short FF/REW, Skip FWD/REV. (Tape travel distance to be converted into period is determined by calculation of diameter of tape winding and number of REEL FG pulses.)	AUTO OFF	Trouble in reel servo circuit. Fault in wiring between reel motor and SERVO/M-CTL board. Faulty reel motor.
72 4	SUP REEL FG (IC14pin63)	Reel overrunning When reel motor runs at a high speed exceeding the specific limit (154X speed) without cassette being inserted and more than 40 SUP REEL FG pulses are output a second.	AUTO OFF	Trouble in reel servo circuit. Fault in wiring between reel motor and SERVO/M-CTL board. Faulty reel motor.
72 5	SUP REEL FG (IC14pin63)	Abnormal reel rotation in unloading mode When supply reel turns only half around or less in unloading mode. (120 SUP REEL FG pulses are output a turning around of supply reel.)	AUTO OFF	Trouble in reel servo circuit. Fault in wiring between reel motor and SERVO/M-CTL board. Faulty reel motor.
72 6	SUP REEL FG (IC14pin63)	Abnormal reel rotation in loading mode When supply reel turns only half around or less in loading mode. (120 SUP REEL FG pulses are output a turning around of supply reel.)	AUTO OFF	Trouble in reel servo circuit. Fault in wiring between reel motor and SERVO/M-CTL board. Faulty reel motor.



Symbol No. . indicates part on the SERVO/M-CTL board unless otherwise indicated.

Code No.	Sensor	Detection manner	Operation	Countermeasure
73: Take-up reel motor is abnormal				
73 1	CAPSTAN FG (IC14pin64) TU REEL FG (IC14pin62)	Tape slackening When take-up reel does not rotate nevertheless capstan motor is running. (When ratio of TU REEL FG pulse to CAPSTAN FG pulse is 0 to 3072 or more in number.)	AUTO OFF	Trouble in reel servo circuit. Fault in wiring between reel motor and SERVO/M-CTL board. Faulty reel motor.
73 2	TU REEL FG (IC14pin62)	Reel locking When no TU REEL FG pulse is output in a specific period of time (4 sec to 12 sec) determined by diameter of tape winding.	AUTO OFF	Trouble in reel servo circuit. Fault in wiring between reel motor and SERVO/M-CTL board. Faulty reel motor.
73 3	TU REEL FG (IC14pin62)	Reel rotating reversely When reel turns reversely for 3 cm in tape length in a mode other than Short FF/REW, Skip FWD/REV.	AUTO OFF	Trouble in reel servo circuit. Fault in wiring between reel motor and SERVO/M-CTL board. Faulty reel motor.
73 4	TU REEL FG (IC14pin62)	Reel overrunning When reel motor runs at a high speed exceeding the specific limit (154X speed) without cassette being inserted and more than 40 TU REEL FG pulses are output a second.	AUTO OFF	Trouble in reel servo circuit. Fault in wiring between reel motor and SERVO/M-CTL board. Faulty reel motor.
73 5	TU REEL FG (IC14pin62)	No detection of tape winding diameter When take-up reel does not turn a quarter round within 3 sec in the mode to detect tape winding diameter just after intake of cassette tape.	AUTO OFF	Trouble in reel servo circuit. Fault in wiring between reel motor and SERVO/M-CTL board. Faulty reel motor. Trouble in mechanism.

Explanation of technical terms

1. Skip FWD:

As the tape beginning is detected in the REW and Search REV modes, the tape is automatically fast forwarded (at 2X speed) to pull the leader tape into the cassette. The condition of this operation is called the Skip FWD mode.

2. Skip REV:

As the tape end is detected in the FF, Search FWD and Play modes, the tape is automatically rewound (at 2X speed) to pull the leader tape into the cassette. The condition of this operation is called the Skip REV mode.

3. Short FF:

When the tape beginning is detected just after intake of a cassette tape, the mechanism automatically fast forwards the tape (at 5X speed) to pull the leader tape into the cassette as the mechanism is in the unloading end state. The condition of this operation is called the Short FF mode.

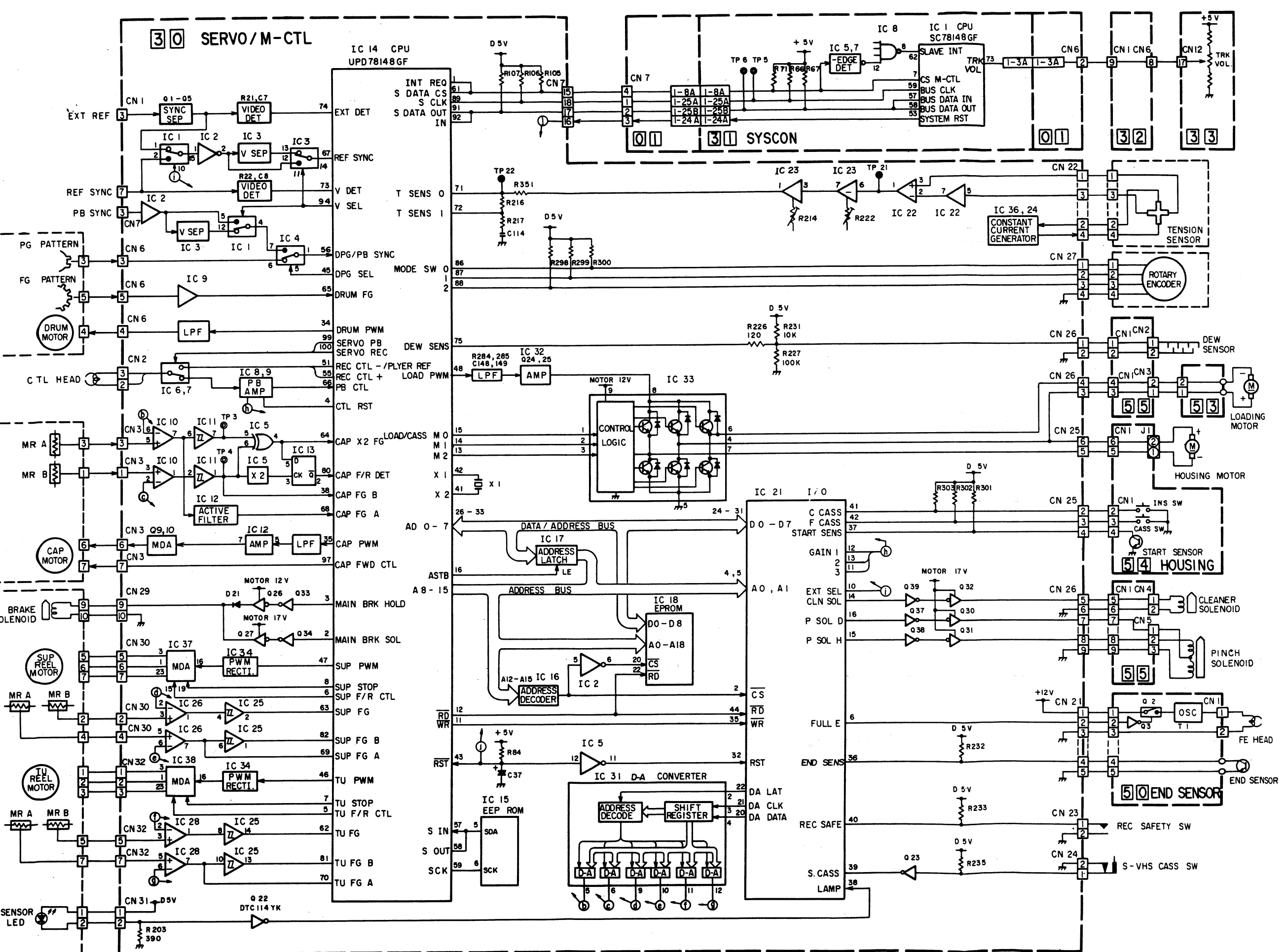
4. Short REW:

When the tape end is detected just after intake of a cassette tape, the mechanism automatically rewinds the tape (at 5X speed) to pull the leader tape into the cassette as the mechanism is in the unloading end state. The condition of this operation is called the Short REW mode.

5. Detection of tape winding diameter:

With intake of a cassette tape, this set detects the diameter of tape winding on the supply reel before the mode is shifted to the loading mode. According to detection result, the revolution torque of the supply reel motor for loading is changed to control the tape tension properly to the current tape winding.

- (1) The take-up reel motor is turned a quarter round in the FWD direction. ⇒ Revolution of the supply reel during this operation is measured in number.
- (2) The tape is taken in the slack.
- (3) The supply reel motor is turned in the REV direction to turn the take-up reel a quarter round. ⇒ Revolution of the supply reel during this operation is measured in number.
- (4) The higher of two revolutions of the supply reel measured in the above steps (1) and (3) is compared with the revolution (1/4 turn) of the take-up reel to find the ratio between them, and the diameter of tape winding at that time is roughly detected.



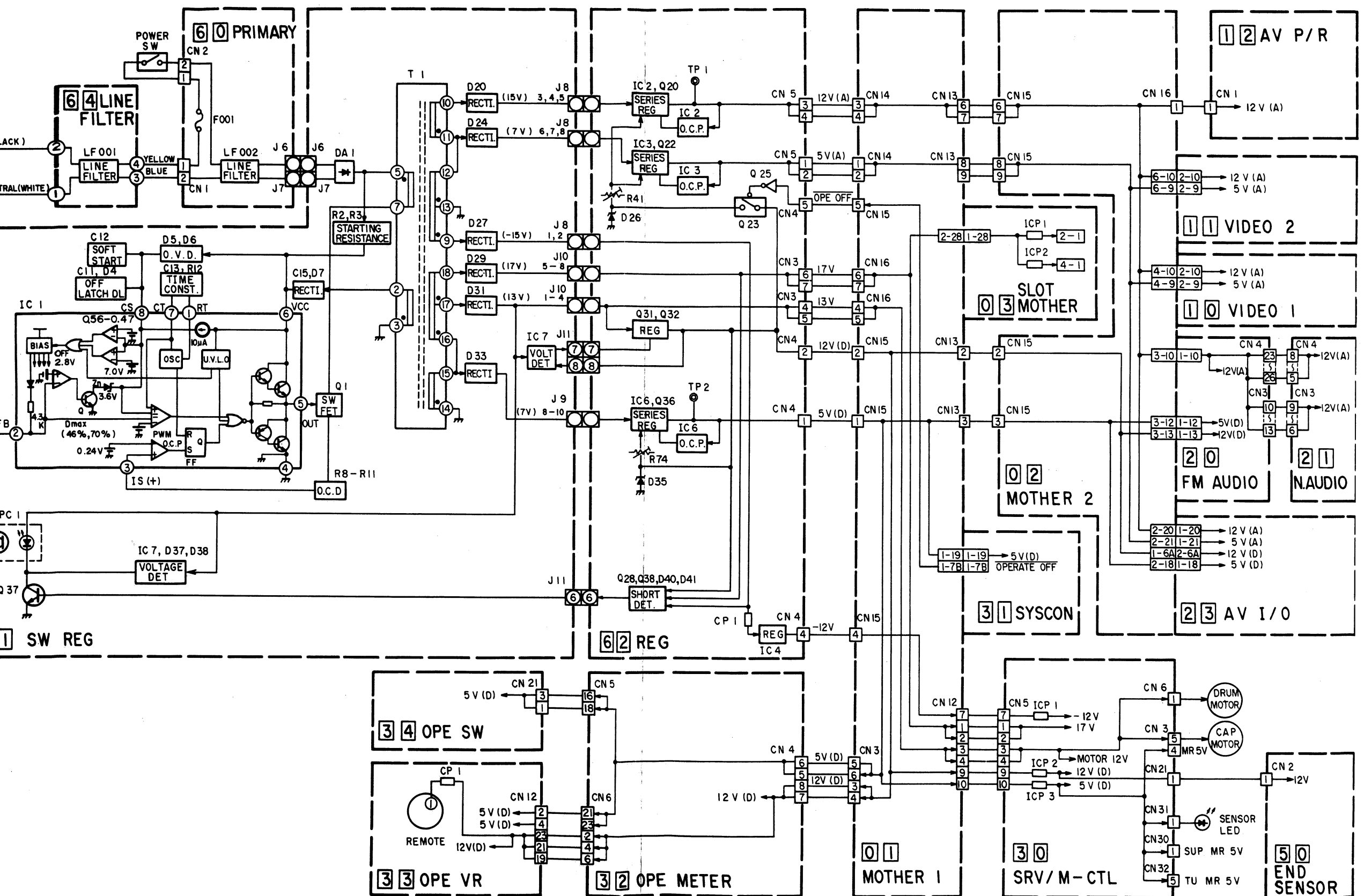


Fig. 7-4-1 Block diagram of Power supply circuit

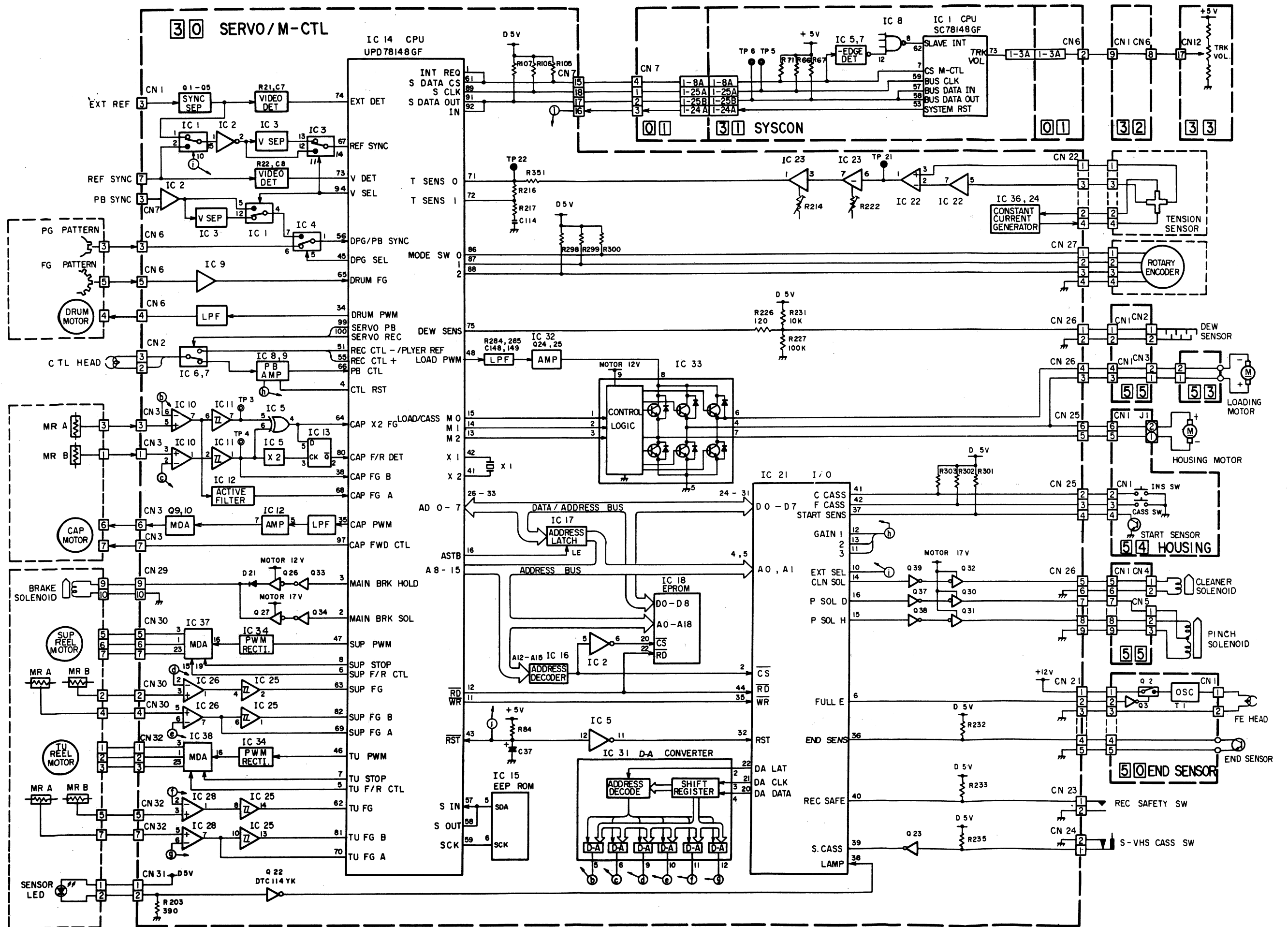


Fig. 7-3-1 M-CTL circuit block diagram

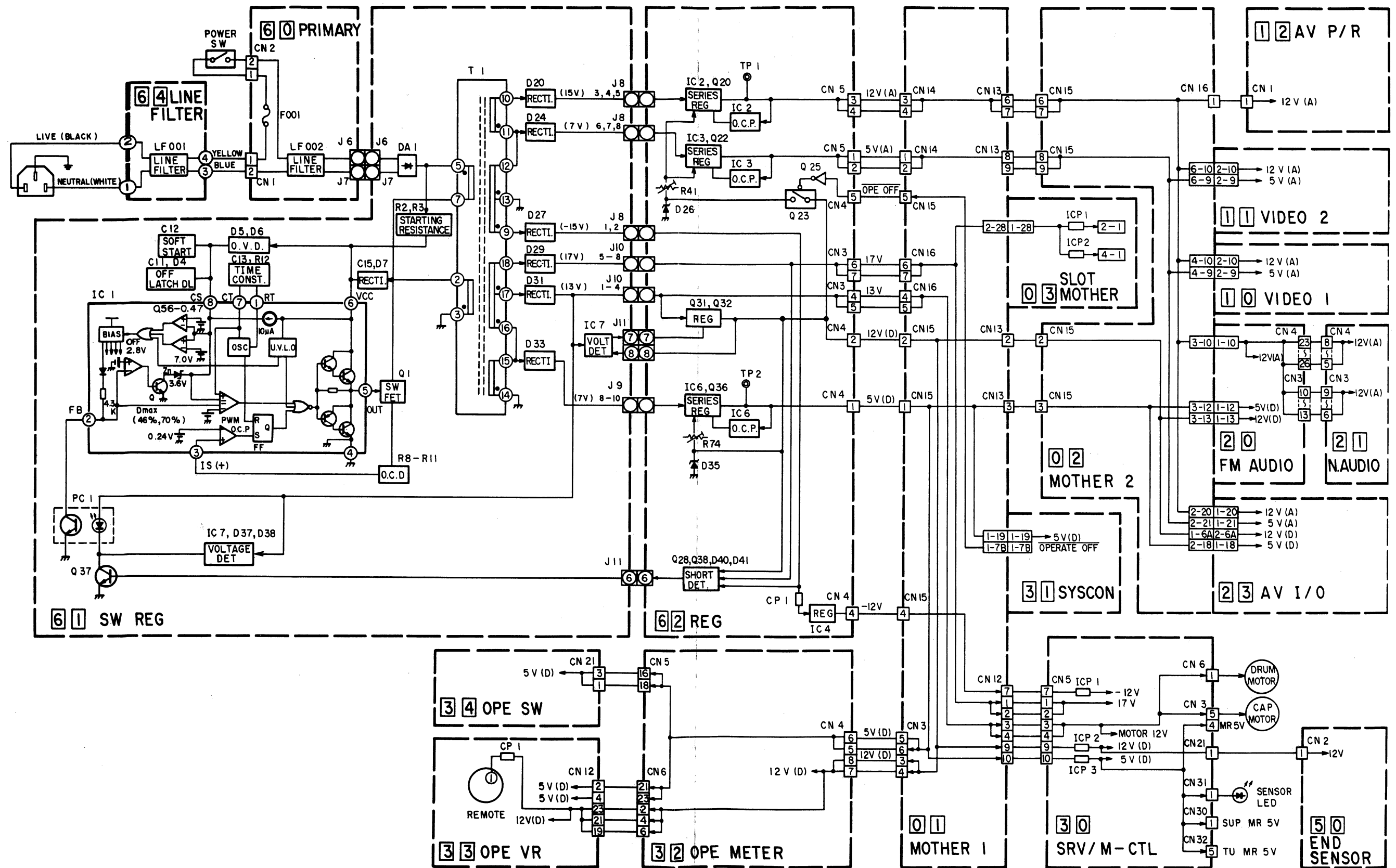


Fig. 7-4-1 Block diagram of Power supply circuit

7.4 POWER SUPPLY CIRCUIT

7.4.1 Operation of switching circuit

Switching power is controlled by IC1 (FA5311P). In detail, as IC1 turns on the switching MOS FET Q1, current flows into the primary coil of the transformer T1. At that time, current does not flow to the secondary coil of T1 since voltage at the secondary coil is applied to the rectifier circuit (D20, D24, D29, D31, D33) in the reverse direction (D27 is supplied with current).

Next, IC1 turns off Q1 and the primary coil resultantly generates counter electromotive force, then current flows to the rectifier circuit of the secondary side to maintain the same ampere return as Q1 is on.

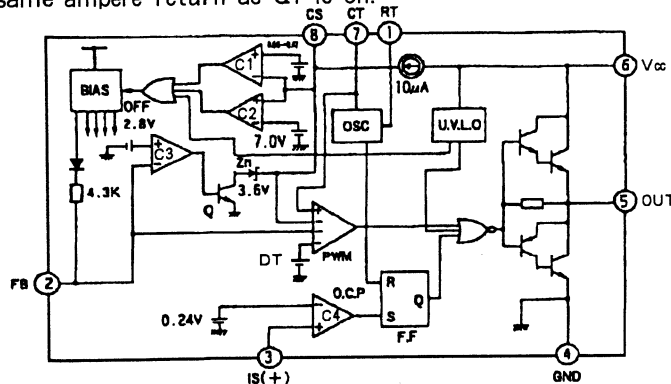


Fig.7-4-1 FA5311P Block diagram

7.4.2 IC1 FA5311P

(1) Oscillation frequency

$$f[\text{kHz}] = \frac{10}{4 \times R_T[\text{k}\Omega] \times C_T[\text{pF}]} \approx 65[\text{kHz}]$$

(2) PWM comparator

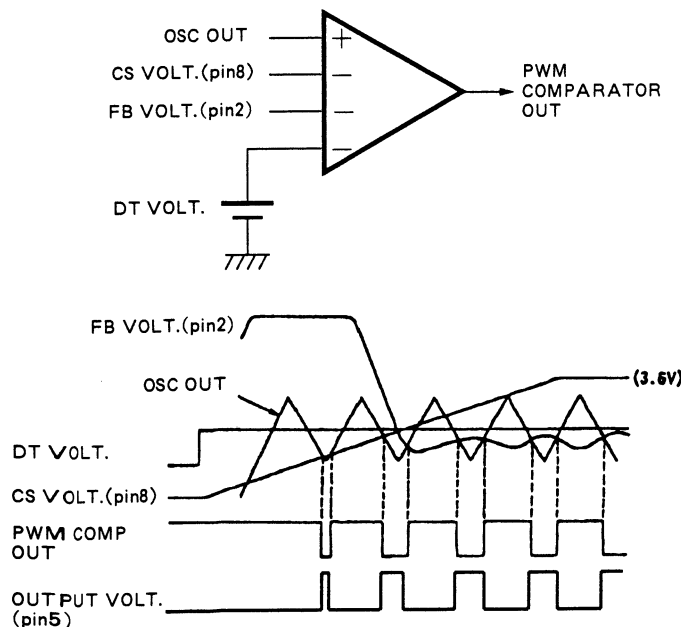


Fig.7-4-2 PWM Comparator

The PWM comparator compares the lowest voltage among CS terminal voltage, FB terminal voltage and DT voltage with the oscillator output.

DT voltage for regulating the maximum duty cycle is set to a voltage with which the maximum duty ratio is set at 70 %.

(3) Soft start

When the power is supplied to the set, the constant-current regulated power (10 μA) supply circuit inside IC1 starts charging to C12 that is externally attached to the CS terminal. Therefore, CS terminal voltage gradually goes up, and the output pulse width is accordingly widened to actuate the set with soft start.

(4) Power cutoff function in case of overload

When output voltage drops down for the reason of overload and shortcircuit, etc., FB terminal voltage goes up. If FB terminal voltage exceeds 2.8 V, output of the comparator C3 becomes low and the zener diode is unclamped in the IC. As a result, C12 to activate soft start is charged again and CS terminal voltage goes up, too. If this voltage exceeds 7 V, output of the internal comparator C2 becomes high and the bias circuit is turned off. Therefore, IC1 enters the off-latch mode and cuts off the output.

The above condition is canceled when the supply voltage (Vcc) is regulated under 8.7 V.

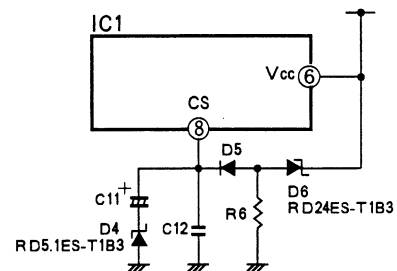


Fig. 7-4-3 External circuit of CS terminal

D4 and C11 that are externally attached to the CS terminal compose a circuit to delay the time to enter the IC into the off-latch mode.

When CS terminal voltage goes up nearly to 5 V, D4 is turned on and C11 is charged, therefore, CS terminal voltage gradually goes up. This operation avoids undesirable action of the power cutoff function such as in momentary overload resulting from turning on of the solenoid.

(5) Over-voltage interrupting function

When Vcc of IC1 exceeds 24 V, CS terminal voltage goes up by the function of the zener diode D6. If this voltage exceeds 7V, the power supply cutoff function is activated as well as the case of overload.

(6) Malfunction prevention circuit against low supply voltage (U.L.V.O.)

To prevent malfunction caused by low supply voltage, IC1 internally employs the malfunction prevention circuit against low supply voltage. When the supply voltage is raised from 0V, IC1 starts operation with 16 V of Vcc, on the other hand, when the supply voltage is dropped down, it is activated to cut off output with 8.7 V of Vcc. When this circuit is activated once, turn down the level of the CS terminal to reset the circuit.

(7) Over-current protector circuit

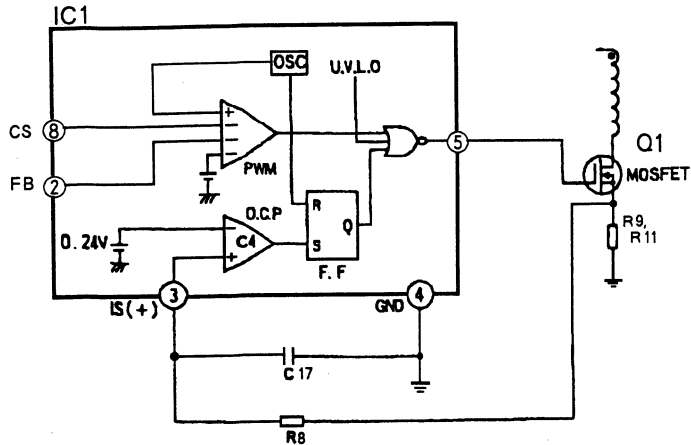


Fig.7-4-4 Over current protector circuit

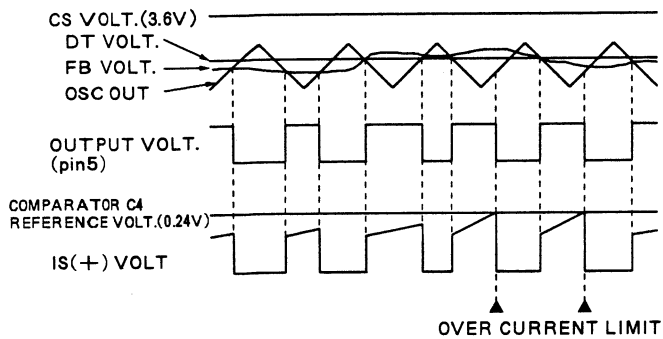


Fig.7-4-5 Over current protector timing chart

The over-current protector circuit is a pulse-by-pulse type circuit which detects peak level of drain current of Q1, the switch MOS FET, at every pulse output.

The circuit consisting of R9 and R11 converts drain current of Q1 into voltage signal, which is supplied to the IS terminal of IC1. If this voltage exceeds the reference voltage of the comparator C4 inside IC1, C4 outputs high level signal to set the flip-flop circuit. Accordingly, IC1 cut off the output to interrupt the over-current.

The flip-flop circuit again starts operation to be reset in the next cycle of OSC output.

7.5 AUTOMATIC ADJUSTMENT FUNCTIONS

7.5.1 Outline

This model reduces adjustment items in number because adjustments of the audio and servo systems are partially automatized.

Adjustment items automatized in this model are shown below.

Servo system

- ① Adjustment of REEL FG duty ratio
- ② Adjustment of CAP FG duty ratio
- ③ Adjustment of stop servo (CAP FG gain adjustment)
- ④ Adjustment of PB switching point

Audio system

- ① Adjustment of normal audio PB level
- ② Adjustment of normal audio PB frequency response
- ③ Adjustment of Hi-Fi audio PB level
- ④ Adjustment of normal audio REC level
- ⑤ Adjustment of normal audio REC frequency response
- ⑥ Adjustment of EE level

7.5.2 Automatic adjustments for servo system

(1) Operation to start automatic adjustments

FG duty ratio, stop servo adjustment

- ① Set the adjustment mode to "04".
 - (a) Turn off the power switch.
 - (b) Turn on the power switch, and press the COUNTER RESET, FF and REW buttons simultaneously within 2 sec after the counter display is on.
 - (c) Press the MENU (UP) button or the SET (DOWN) button continually until "04" appears in the counter display.
- ② Press the IN/+SHIFT or OUT/-SHIFT button.
- ③ Automatic adjustment starts. Then the mode of the set changes as follows.
 - (a) Reel motor rotates. (SUP/TU REEL FG duty ratio automatic adjustment mode)
 - (b) Capstan motor rotates. (CAP FG duty ratio automatic adjustment mode)
 - (c) Step slow mode (Stop servo automatic adjustment mode)
- ④ When the above automatic adjustments are completed, "04 End" appears in the counter display.

PB switching point adjustment

- ① Set the adjustment mode to "0F".
- ② Play back the MHPE alignment tape.
- ③ Align the tracking correctly.
- ④ Press the IN/+SHIFT or OUT/-SHIFT button.
- ⑤ Automatic adjustment starts. When the automatic adjustment is completed, "0F End" appears in the counter display.

(2) FG duty ratio automatic adjustment circuit

The purpose of FG duty ratio adjustment is to shape feeble output (sine wave) of the MR element installed for detecting rotation speed and rotating direction of each motor to be a rectangular waveform of 50 % duty ratio.

Accordingly, irregularity in the characteristics of MR elements is electrically removed. Therefore, the FG duty ratio adjustment must be performed after either of the capstan motor and reel motor is replaced.

Actually, there are six FG duty ratio adjustment circuits provided in this set since each motor has two built-in MR elements (A, B).

The following explains about the automatic adjustment circuit for CAPSTAN FG A pulse by way of example.

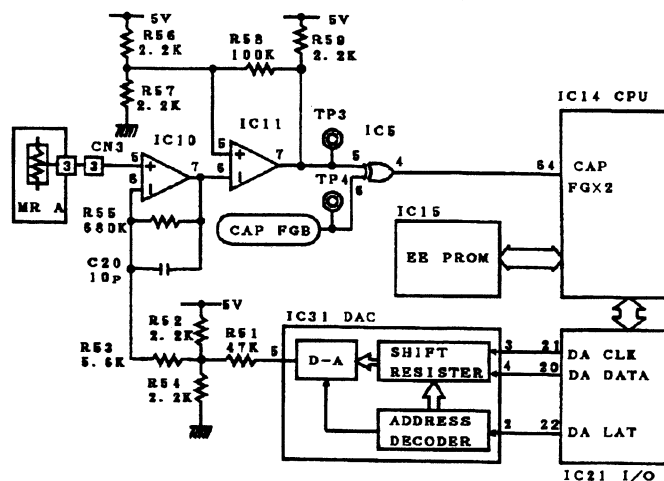
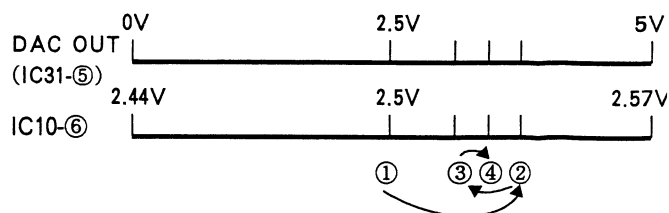


Fig. 7-5-1 FG duty ratio automatic adjustment circuit

Simply explaining the operation, the CPU of IC14 transforms DC voltage output from the D-A converter while measuring the CAPSTAN FG duty ratio. When the duty ratio becomes 50 %, the CPU writes the data in the EEPROM of IC15.

Detailed operation of the CPU IC14 is as follows.

- ① The CPU starts the capstan motor.
- ② It regulates the D-A converter output for CAP FG B pulse to 0 V. As a result, there is no CAP FG B output at TP4 and the CPU (pin 64, IC14) is supplied only with CAP FG A pulse.
- ③ The D-A converter (pin 5, IC31) outputs 2.5 V.
- ④ The duty ratio at that time is measured. (average of three measurement results)
- ⑤ If the duty ratio is 40 to 60 %, the CPU commences motor speed control and measures duty ratio again. (average of 768 measurement results)
- ⑥ According to the lastly measured duty ratio, the CPU decides the voltage to be output from the D-A converter. In detail, the CPU changes the voltage so as to set the duty ratio to 50 % as shown in the figure below.



- ① Fixed to 2.5 V
- ② Intermediate voltage between ① and the max. voltage
- ③ Intermediate voltage between ① and ②
- ④ Intermediate voltage between ③ and ②

Fig. 7-5-2 Change in output voltage of D-A converter

- ⑦ The CPU writes the 8th D-A converter output data in the EEPROM IC15.

(If 50 % duty ratio is obtained before the 8th measurement, measurement is suspended and the last data is written in the EEPROM.)

(3) Stop servo automatic adjustment

The stop servo circuit functions to fix the stop point of the capstan motor electrically, and it starts operation as the tape speed is slowed down nearly to 1/10X speed.

Motor drive voltage generated by the CPU during stop servo operation has such a waveform as shown in Fig. 7-5-3, and it is yielded by folding back the CAP FG A pulse at 2.5 V.

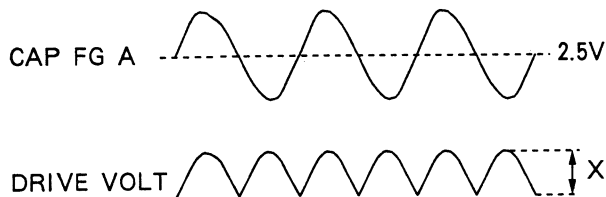


Fig. 7-5-3 Waveform of capstan motor drive voltage

Compared with previous models that needs gain adjustment to make the level X (in the above figure) constant since the level of CAP FG A depends on motor's peculiarity, this model automatically adjusts the gain by the function employed in the CPU.

The CPU first measures input level of FG pulse (at pin 68 of IC14) to make the drive voltage constant in stop servo operation.

For this level measurement, the motor is required to run at a 1/100X speed approximately for yielding CAP FG pulse without distortion.

However, this is a theoretical requirement and it is impossible in practical operation.

Therefore, this model utilizes the step slow mode for FG level measurement and measures FG level just before the tape running is stopped.

According to the mean FG level (average of 24 measurement results), the CPU calculates a constant to output drive voltage at a specific level and writes it in the EEPROM.

(4) PB switching point automatic adjustment

PB switching point adjustment is necessary for correct change of DRUM FF polarity that is used as information of video head position.

Since DRUM FF signal is obtained by delaying DRUM PG signal, the PB switching point adjustment changes the delay time so that the polarity of DRUM FF changes 6.5 H before V. sync as the MHPE alignment tape is played back. This model automatizes this adjustment by the CPU.

- ① The CPU IC14 inputs DRUM PG, PB V. SYNC and PB H. SYNC signals through one input port (pin 56) by time-division method as well as done in the BR-S822.
- ② The CPU changes delay time of DRUM PG to yield DRUM FF and calculates data so as to obtain 6.5 H as a period from DRUM FF to PB V. sync. (The CPU changes delay time from the large amount of DRUM FF's delay.)
- ③ The CPU repeats data measurement six times to obtain a mean value of four measurement results excluding the largest and smallest ones, and writes it in the EEPROM.

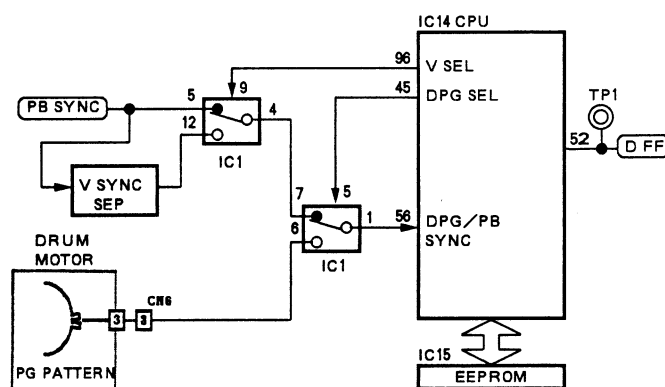


Fig. 7-5-5 PB switching point automatic adjustment circuit (SERVO/M-CTL board)

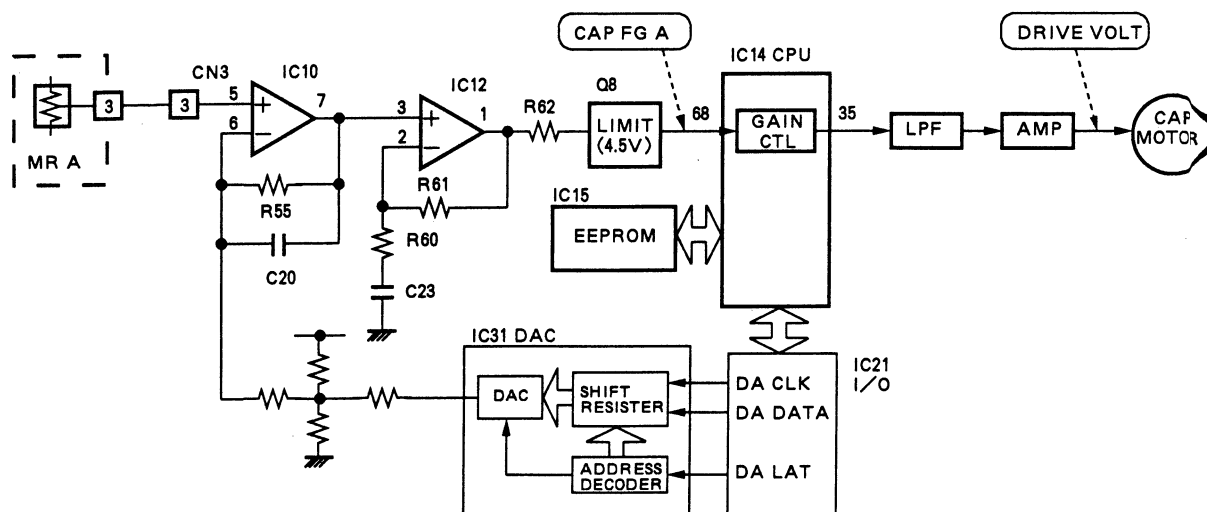


Fig. 7-5-4 Stop servo automatic adjustment circuit (SERVO/M-CTL board)

7.5.3 Automatic adjustment functions for audio system

(1) Table of audio system adjustment modes

There are two kinds of adjustment modes (automatic adjustment and manual adjustment) provided for the audio system, and either of adjustment modes is usable.

	Adjustment mode No.	Adjustment item
Manual adjustment	11	EE level adjustment
	12	PB level adjustment
	13	PB frequency response adjustment
	14	REC level adjustment
	15	REC frequency response adjustment
	16	Initialization of adjustment value
Automatic adjustment	17	Overall automatic adjustment (for factory use)
	18	Normal audio PB level adjustment
	19	Normal audio PB frequency response adjustment
	1A	Hi-Fi audio PB level adjustment
	1B	Normal audio REC level adjustment
	1C	Normal audio REC frequency response adjustment
	1D	Hi-Fi audio deviation adjustment
	1E	REC mode automatic adjustment

Table 7-5-1 Table of audio system adjustment modes

(2) Operation procedure

- Turn off the power switch.
- Turn on the power switch again and press the COUNTER RESET, FF and REW buttons simultaneously within 2 sec after the counter display is on.
- Press the MENU (UP) or SET (DOWN) button continually until the desired adjustment No. appears in the counter display.

[Manual adjustment]

Manual adjustment procedure is the same as for previous models, namely, input required signal through the LINE IN terminal and connect a measuring instrument to the LINE OUT terminal.

- Select a channel desired for adjustment with the AUDIO MONIOR switch.
CH1:for adjustment of CH1 only
CH2:for adjustment of CH2 only
MIX:for adjustment of both channels (BR-S800 only)
- Select normal audio or Hi-Fi audio with the AUDIO MONITOR switch.
- Switching between S-VHS and VHS modes depends on the type of cassette tape inserted.
- Manual adjustment is effectuated by pressing the COUNTER RESET button.
- Use the REC LEVEL VRs (TRACKING VR for BR-S500) for adjustment.
- Adjustment value is written in the EEPROM by pressing the AUTO MODE switch.

[Automatic adjustment]

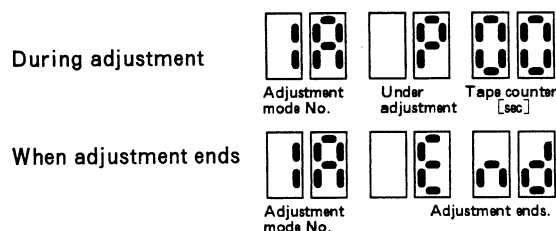
Automatic adjustment needs neither connection of measuring instrument nor change of menu switch setting. (Actually, NR and Limiter circuits are off, and menu switch setting is accordingly unchanged.)

Note 1: Set the TRACKING VR to the center position.

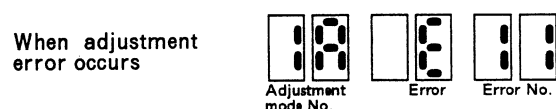
Note 2: Proceed in the order of the adjustment mode numbers except No. 17.

Note 3: Do not use the adjustment mode No. 17 since this is provided for factory use only.

- Pressing the COUNTER RESET button effectuate automatic adjustment mode.
- When adjustment is completed, "End" appears in the counter display and the cassette tape is ejected. In automatic adjustment the following indications appear in the counter display.



If adjustment error occurs, the following indications appear in the counter display.



Error No.	Detail of error
E11	Error in normal audio CH1 PB level adjustment
E12	Error in normal audio CH2 PB level adjustment
E13	Error in Hi-Fi audio L-ch PB level adjustment
E14	Error in Hi-Fi audio R-ch PB level adjustment
E15	Error in normal audio CH1 REC level adjustment
E16	Error in normal audio CH2 REC level adjustment
E17	Error in Hi-Fi audio L-ch deviation adjustment
E18	Error in Hi-Fi audio R-ch deviation adjustment
E19	Error in normal audio CH1 PB frequency response adjustment
E1A	Error in normal audio CH2 PB frequency response adjustment
E1B	Error in normal audio CH1 REC frequency response adjustment
E1C	Error in normal audio CH2 REC frequency response adjustment
E1D	Misinsertion of cassette tape

Table 7-5-2 Table of error numbers

(3) Initialization of adjustment value

The adjustment mode No. 16 is provided to preset the theoretical design values in the EEPROM.

If the EEPROM IC10 on the FM AUDIO board is replaced, the set is enabled to record and play back without performing respective adjustments. For actual use, however, make sure to adjust respective items to obtain better sound since the preset values are theoretical to the last.

- Take the cassette tape out of the set and then turn off the power switch.
- Turn on the power switch again, and press the COUNTER RESET, FF and REW buttons simultaneously within 2 sec after the counter display is on.
- Press the MENU (UP) or SET (DOWN) button continually until the adjustment No. 16 appears in the counter display.
- After pressing the COUNTER RESET button, press the AUTO MODE button to write the preset values in the EEPROM.

(4) Automatic adjustment mode

In the automatic adjustment modes (No. 17 through No. 1E) respective adjustments shown in Table 7-5-3 are performed automatically under control of the CPU of IC9 on the FM AUDIO board.

For carrying out the automatic adjustments, this model employs VCAs (Voltage Controlled Amplifier) as adjustment VRs, therefore, signal level is varied as the CPU controls output voltage of the D-A converter.

On the other hand, DC voltage generated by rectifying LINE OUT signal is supplied to the A-D input port (pin 58) of the CPU to enable it to measure output signal level.

(a) PB level adjustment

With playback of the 1 kHz reference signal of the alignment tape, the VCA for PB level adjustment is controlled so that the LINE OUT signal meets the specifications in the level.

(b) EE level adjustment

The CPU supplies the 1 kHz signal having the reference level from the PWM output terminal (pin 78) to the audio circuit. The automatic adjustment controls the VCA for EE level adjustment so that the LINE OUT signal meets the specifications in the level.

The VCA for normal audio EE level adjustment generally serves as the REC level adjustment VR on the front panel.

Adjustment item		Adjustment mode No.								Signal	REF. SIG.	SIG. CTL1	SIG. CTL2	GAIN CTL	GAIN CTL2	Level control terminal
		No. 17	No. 18	No. 19	No. 1A	No. 1B	No. 1C	No. 1D	No. 1E		IC9 -40	IC9 -39	IC9 -38	IC9 -16	IC9 -17	
Pilot signal search		⊙								—	H	L	H	L	L	—
Normal audio CH1 PB level (1kHz)		⊙	⊙							Playback of MBAE alignment tape	H	L	H	L	H	IC7pin8 (N. AUD PWB)
Normal audio CH2 PB level (1kHz)		⊙	⊙							Playback of MBAE alignment tape	H	H	L	L	H	IC8pin8 (N. AUD PWB)
Normal audio CH1 PB frequency response (400Hz ⇒ 8kHz)		⊙		⊙						Playback of MH-8 alignment tape	H	L	H	H	L	IC7pin10 (N. AUD PWB)
Normal audio CH2 PB frequency response (400Hz ⇒ 8kHz)		⊙		⊙						Playback of MH-8 alignment tape	H	H	L	H	L	IC8pin10 (N. AUD PWB)
Hi-Fi audio L-ch PB level (1kHz)		⊙			⊙					Playback of MH-F8/MBAFE-2 alignment tape	H	L	L	L	L	IC5pin8 (FMAUD PWB)
Hi-Fi audio R-ch PB level (1kHz)		⊙			⊙					Playback of MH-F8/MBAFE-2 alignment tape	H	H	H	L	L	IC5pin10 (FMAUD PWB)
Normal audio CH1 EE level		⊙				⊙	⊙		⊙	PWM 24 kHz carrier, 1kHz modulated wave	H	L	H	L	L	IC9pin8 (N. AUD PWB)
Normal audio CH2 EE level		⊙				⊙	⊙		⊙	PWM 24 kHz carrier, 1kHz modulated wave	H	H	L	L	L	IC10pin8 (N. AUD PWB)
Normal audio REC level	REC mode	⊙				⊙			⊙	PWM 24 kHz carrier, 1kHz modulated wave	H	L	H	L	L	IC9/IC10pin10 (N. AUD PWB)
	CH1 adj. (PB mode)	⊙				⊙			⊙	Play back selfrecorded signal.	H	L	H	L	L	—
	CH2 adj. (PB mode))	⊙				⊙			⊙	Play back selfrecorded signal.	H	H	L	L	L	—
Normal audio REC frequency response	REC mode	⊙					⊙		⊙	8 kHz pulse	H	L	H	H	L	Q201/Q202-B (N. AUD PWB)
	CH1 adj. (PB mode)	⊙					⊙		⊙	Play back selfrecorded signal.	H	L	H	H	L	—
	CH2 adj. (PB mode))	⊙					⊙		⊙	Play back selfrecorded signal.	H	H	L	H	L	—
Hi-Fi audio deviation	REC mode	⊙						⊙	⊙	PWM 24 kHz carrier, 1kHz modulated wave	H	L	L	L	L	IC2pin2/pin62 (FMAUD PWB)
	CH1 adj. (PB mode)	⊙						⊙	⊙	Play back selfrecorded signal.	H	L	L	L	L	—
	CH2 adj. (PB mode))	⊙						⊙	⊙	Play back selfrecorded signal.	H	H	H	L	L	—
Hi-Fi audio L-ch EE level		⊙						⊙	⊙	PWM 24 kHz carrier, 1kHz modulated wave	H	L	L	L	L	IC5pin8 (FMAUD PWB)
Hi-Fi audio R-ch EE level		⊙						⊙	⊙	PWM 24 kHz carrier, 1kHz modulated wave	H	H	H	L	L	IC5pin10 (FMAUD PWB)

Table 7-5-3 Function table of automatic adjustment modes

As shown in Fig. 7-5-6, the CPU outputs modulated-wave signal that 1 kHz signal is modulated in pulse width with 24 kHz carrier. This makes easy to remove higher harmonic component which is included in rectangular wave. This signal is converted into sine wave by an external LPF and then supplied to the audio circuit.

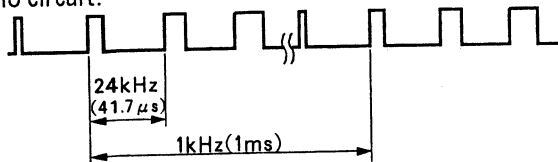


Fig. 7-5-6 Modulated-wave 1 kHz signal

(c) REC level adjustment

This set has no need of repeated operations of recording and playback for REC level adjustment as done for previous models, but requires recording and playback just once.

- ① The set enters in the REC mode.
- ② The CPU output 1 kHz signal of reference level from the PWM output terminal.
- ③ Controlling the VCA for REC level adjustment, the CPU raises signal level to be recorded on the tape by 0.5 dB every 2 seconds in 15 steps (± 3.5 dB to the theoretical value). At that time, the CPU utilizes the value indicated by the tape counter for changing the REC level.

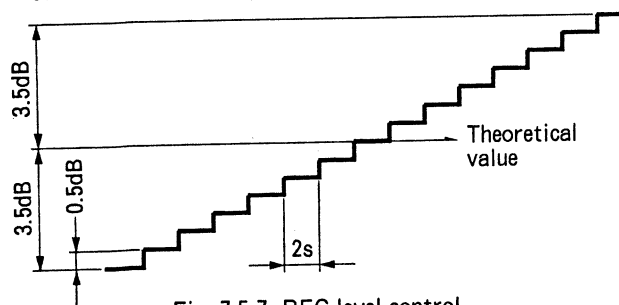


Fig. 7-5-7 REC level control

- ④ The CPU finalizes the REC level according to the value of the tape counter as the playback signal level meets the specifications.

(d) Normal audio PB frequency response adjustment

As the alignment tape (MH-8) on which 400 Hz and 8 kHz signals are recorded at the level of -20 dB is played back, the CPU adjusts the level of the 8 kHz signal so that it becomes 0 dB to that of the 400 Hz signal.

- ① The CPU searches the 400 Hz signal segment in the Search mode. (For detecting the frequency of a PB signal, the CPU inputs the PB signal through pin 2 (EV2).)
- ② The PB level of the 400 Hz signal is stored in the memory.
- ③ The 8 kHz signal segment is searched in the Search mode.
- ④ The CPU adjusts the VCA of the adding equalizer so that the PB level of the 8 kHz signal becomes 0 dB to the PB level of the 400 Hz signal.

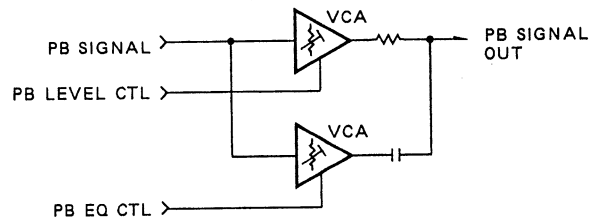


Fig. 7-5-8 Adding equalizer circuit

(e) Normal audio REC frequency response adjustment

The 8 kHz, -20 dB signal is recorded and played back to adjust its PB level so as to meet the specifications (-20 dB to the reference level).

- ① The CPU enters the set in the REC mode.
- ② The CPU outputs the 8 kHz, 0 dB signal from the PWM output terminal.
- ③ The CPU changes the signal level to -20 dB with the external 20 dB attenuator.
- ④ Controlling the VCA for bias level adjustment, the CPU decreases the REC bias level by 0.5 dB every 2 seconds in 13 steps (± 3.0 dB to the theoretical value). At that time, the CPU utilizes the value indicated by the tape counter for changing the bias level.
- ⑤ The CPU finalizes the bias level according to the value of the tape counter as the playback signal level meets the specifications.

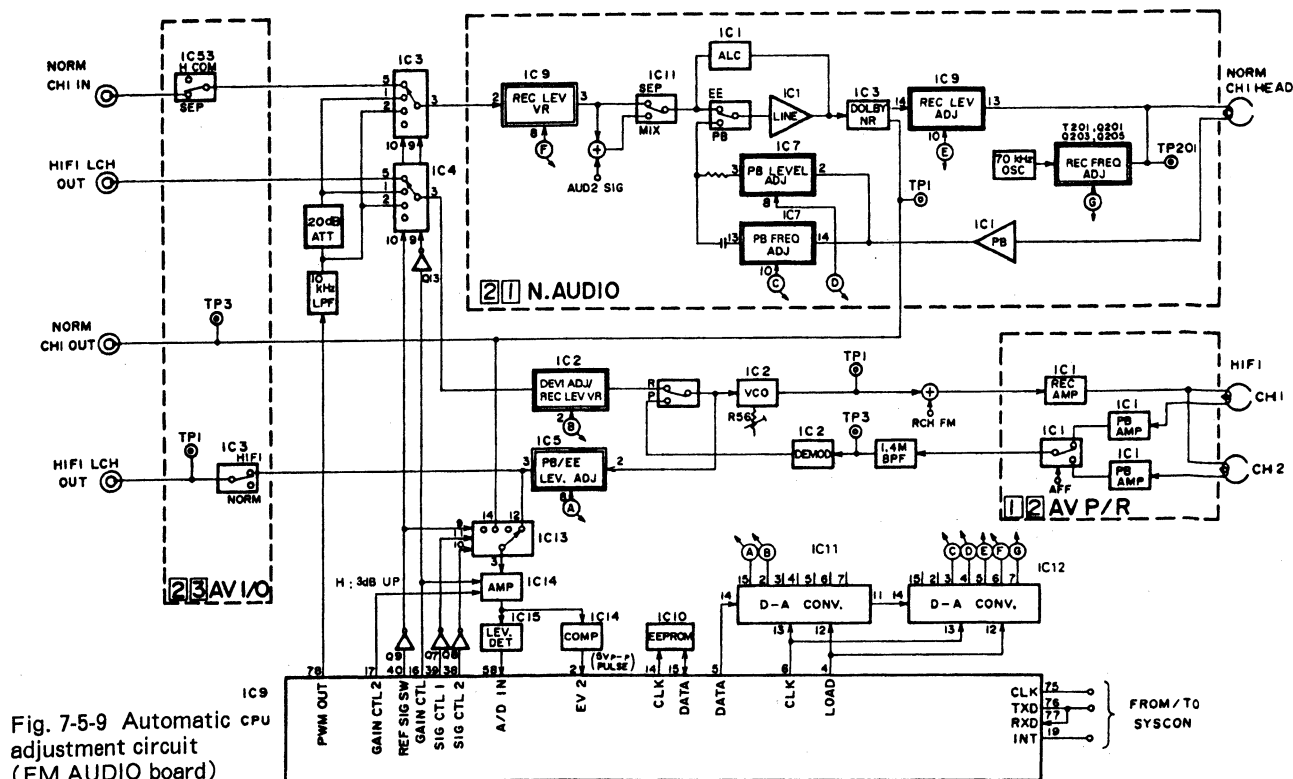
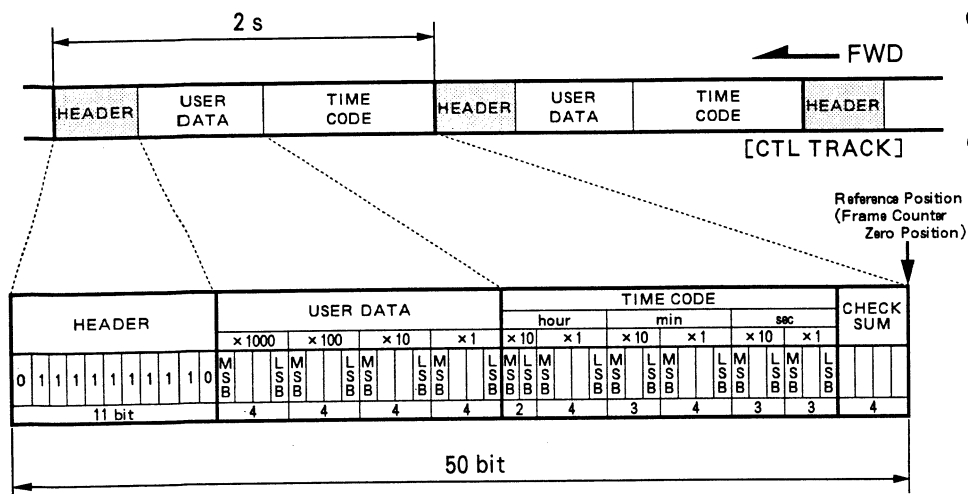


Fig. 7-5-9 Automatic CPU adjustment circuit (FM AUDIO board)

No.	Adjustment mode	Adjustment part	Specifications	Operation mode	Remark
00 [00]	—	—	—	—	
01 [01]	—	—	—	—	
02 [02]	—	—	—	—	
03 [03]	Slow tracking preset	[TRACKING VR]	No noise	+1/30X speed	[IN/+SHIFT]: to start adjustment [AUTO MODE]: to memorize adj. data
04 [04]	FG duty ratio/Stop servo	Automatic	—	Without cassette inserted	[IN/+SHIFT]: to start adjustment
05 [05]	—	—	—	—	
06 [06]	—	—	—	—	
07 [07]	Reversing torque	[IN/+SHIFT]:UP [OUT/-SHIFT]:DOWN	176g-cm	-1×	
08 [08]	—	—	—	—	
09 [09]	—	—	—	—	
0A [0A]	Take-up torque	[IN/+SHIFT]:UP [OUT/-SHIFT]:DOWN	170g-cm	REC or PLAY	
0B [0b]	Loading torque	[IN/+SHIFT]:UP [OUT/-SHIFT]:DOWN	30g-cm	PLAY	Supply reel motor is controlled by loading torque.
0C [0C]	Play back tension	[IN/+SHIFT]:UP [OUT/-SHIFT]:DOWN	BR-S800:58g-cm BR-S500:63g-cm	REC or PLAY	
0D [0d]	—	—	—	—	
0E [0E]	—	—	—	—	
0F [0F]	Switching point	Automatic	—	PB of MHPE alignment tape	
10 [10]	—	—	—	—	
11 [11]	Audio EE level	BR-S800:[REC LEV VR]	-6dBs	EE	[COUNTER RESET]:to start adj [AUTO MODE]:to memorize adj. data.
12 [12]	Audio PB level	BR-S800:[REC LEV VR] BR-S500:[TRC VR]	Normal : -9dBs HiFi : -6dBs	PB of MBAE/MH-F8 alignment tape	Adjustment order: Normal audio: [12], [13], [11], [14], [15] Hi-Fi audio: [12], [14], [11] after carrier frequency adj.
13 [13]	Normal audio PB frequency response	BR-S800:[REC LEV VR] BR-S500:[TRC VR]	8 kHz : Same level as ref.(400Hz) level.	PB of MH-8 alignment tape	
14 [14]	Audio REC level	BR-S800:[REC LEV VR]	-6dBs	REC/PLAY	
15 [15]	Normal audio REC frequency response	BR-S800:[REC LEV VR]	8 kHz : Same level as ref.(400Hz) level.	REC/PLAY	REC system should be adjusted both in the VHS and S-VHS modes.
16 [16]	Audio EEPROM preset mode	—	—	—	
17 [17]	Overall automatic adjustment of audio system	Automatic	—	—	For factory use
18 [18]	Normal audio PB level	Automatic	—	PB of MBAE alignment tape	
19 [19]	Normal audio PB frequency response	Automatic	—	PB of MH-8 alignment tape	
1A [1A]	Hi-Fi audio PB level	Automatic	—	PB of MH-F8 alignment tape	
1B [1b]	Normal audio REC level	Automatic	—	—	Should be adjusted both in the VHS and S-VHS modes.
1C [1C]	Normal audio REC frequency response	Automatic	—	—	Should be adjusted both in the VHS and S-VHS modes.
1D [1d]	Hi-Fi audio EE level	Automatic	—	—	
1E [1E]	Audio REC system automatic adjustment	Automatic	—	—	Should be adjusted both in the VHS and S-VHS modes.
1F [1F]	Loading/Unloading test mode	[IN/+SHIFT] : Loading [OUT/-SHIFT] : Unloading		Without cassette inserted	

Table 7-5-4 Table of adjustment modes

7.6 CTL TIME CODE



● Check sum :
Lower four bits of a result of binary addition of total 10 digits that all digits of user data and those of time code data.

● Digit in the 1st place of second indication:
Since CTL time code is written every 2 seconds, digits in the 1st place of seconds indication should be read as follows :
0 = 0 sec, 1 = 2 sec, 2 = 4 sec, 3 = 6 sec, 4 = 8 sec.

● User data :
In the regeneration mode, user data is processed as same as other data recorded on the tape.

Note : If a user data contains any data having the same numeric string as that of the header portion, it is erroneously read out and causes malfunction.

Fig. 7-6-1 Construction of CTL time code

7.7 HEADS ARRANGEMENT ON UPPER DRUM

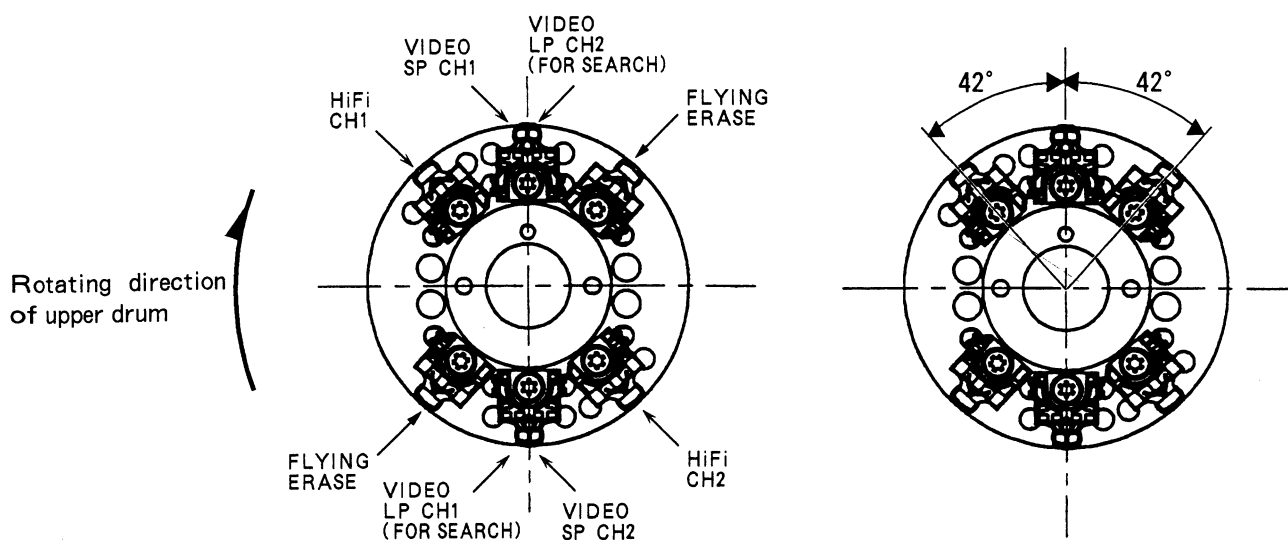


Fig. 7-7-1 BR-S800E heads arrangement

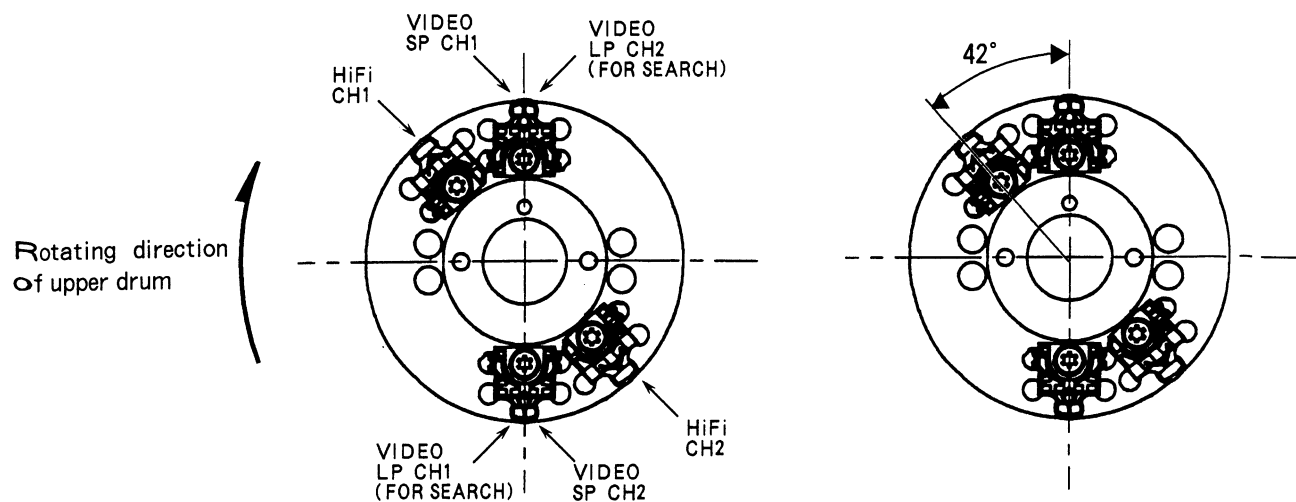


Fig. 7-7-2 BR-S500E heads arrangement